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GOOD HEALTH

GOOD HEALTH
OR THE
PHYSIOLOGY OF DIETETICS
AND
MASSAGE

By
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P R E F A C E.

THE original motive which prompted me to write this book arose from a contemplation of the increasingly large number of sudden deaths due to preventable diseases among people in the prime of life.

On two different occasions I had myself been very near death's door from diseases which could have easily been prevented if I had at the time understood the physiology of digestion and principles of hygiene.

As I was restored to health, strength, and vigour by adopting the system set forth in the following pages, and for fifteen years past have witnessed its good effects upon others, as well as upon myself, the experience is here recorded with the hope that still larger numbers may benefit by the same means.

The work is written in plain, simple language, and, as far as possible, void of technicalities, for the purpose of reaching the class of people who most require instruction upon the primary laws of health.

It is interspersed with illustrations, anecdotes, and references designed to place the subject in a semi-novel form, so as to render it more interesting and attractive to the general reader.

At the same time, there is a close observance maintained to the proper principles of the most approved and up-to-date views of leading physiologists, with the object of securing, maintaining, and promoting health.

On some points, where doctors differ and specialists disagree, I have kept in the channel where safe sailing is experienced and no wrecks can possibly happen.

On the subject of starch-changed cereals as a special diet in cases of diabetes mellitus, combined with other food and the usual precautions necessary in such cases, there will certainly be some criticism by physicians who condemn the use of starch in any form for diabetic patients.

In reference to this expected criticism, I would ask a thorough trial and test of starch-changed cereals in combination with gluten, in any case of diabetes mellitus, and watch the decreased secretions of saccharine deposits, before they condemn it. The fact is acknowledged that remedies for different diseases that were ignored some years ago are now recommended, while others that were in use are now ignored. It is only reasonable, therefore, that this starch-changed food should be thoroughly tested by the medical profession.

This book is intended for the people—the great mass of people who are in ill-health. It is designed to afford directions for the treatment of the body by natural means, which are to be practised in a common-sense manner, yet in accordance with scientific and physiological principles.

In its production I have laboured under difficulties in writing away from home and without books of reference, so that many imperfections will necessarily be found, which, I trust, the generous reader will overlook.

The main object has been to produce (though in an imperfect style, owing to the causes just referred to) a short and practical guide to health. The laws of our human organism should be better understood, for they cannot be broken with impunity. Their violation result in some derangement of the system, which, if continued, produces complications and impairment of some vital organ of the mechanism which is so “fearfully and wonderfully

made." *A better knowledge of these things is, therefore, of the greatest importance to every individual.*

If I can be of assistance to anyone who wishes further directions, they may address me on the subject. To secure a reply, a stamped and plainly addressed envelope must be enclosed, when as prompt an answer as possible will be returned.

F. C. IRELAND.

21, KING STREET,
SOUTHPORT,
May, 1897.

GOOD HEALTH

OR

THE PHYSIOLOGY OF DIETETICS AND MASSAGE.

CHAPTER I.

INTRODUCTION.

THERE is no subject in Christendom, or in the wide world over, so closely bound up with our individual, family and national interests as that of health: there is no other subject that can compare with it in general importance to the welfare of the public.

Among the various interests that have combined to make the nineteenth century with all its boundless power and achievements famous, there is none that has received greater attention, and that is now at the closing years of the cental, more important than that of the general health of the people.

Medical colleges have multiplied by the thousand, and physicians by the ten thousand: hospitals, infirmaries, sanatoriums, nurses, medical professors, medical books and specialists have kept pace with

railways, electricity, and other vast and innumerable mechanical inventions. It has been an age of patent medicines, in which huge fortunes have been amassed from the sale of nostrums, professedly intended to cure all the ills that flesh is heir to.

It has been an age of patent invention and manufacturing devices for turning the cereal products of the earth into fancy and attractive foods for pleasing the eye, the palate, the cook, and to conform to the modern idea of fashion in all its unreasonable demands. It has been an age of steam and hot-water heating of dwellings, by the radiation of a high artificial temperature in living apartments, railway carriages, and even tramcars, all for the purpose of making them more comfortable and healthy.

It has been an age of vast dental inventions for the manufacture of artificial teeth. Large establishments have been built up for the purpose of making teeth, repairing teeth, and supplying teeth, which the modern mode of living has caused to decay. It is not an uncommon sight in these days to see a toothless man or woman, and every such sight is a signal of improper alimentation. There has been a deficiency in the natural bone-producing elements in the food eaten. The dental profession has been of immense advantage in respect of repairing decayed teeth and supplying new ones, by which the mastication of food can be assisted, and so help in its digestion and assimilation, which are so necessary to promote health.

Changes also in the system of milling and in the manufacture of flour for bread have gone on with

astonishing strides, in which millions have been lavished. To even mention in the briefest way possible the progressive steps taken to keep up with the spirit of enterprise in this line of business would take more space than is intended for the subject now in hand. The old-fashioned mill-stones, which deserve a bow of reverence from every passer-by, have been mercilessly banished, or relegated to the old quarry, or for the purpose of making concrete to be trodden underfoot, while the chilled rollers and patent purifiers are doing the work, not the work of the old system of making flour, which retained the germ, the natural soda, sulphur, potash-salts, and other mineral elements, so very essential to the production of bone, muscle, brain, and tissue, but the work of eliminating, as far as possible, all these essential substances, so as to produce, by centrifugal and other purifying processes of modern invention, a flour as fine as starch, and a loaf as white as snow.

I will not say, as in other things just referred to, that this has all been done in the interests of health, for such would be absolutely false. It has been done solely to conform to the craving demands of fashion and self-protection ; for, when one started in this line, others were obliged to follow, or lose their trade and money. It has been one of the most damaging changes, miscalled " Improvements, " of the century.

It is not surprising that so many people are toothless, as it has rendered bread, which is designed to be the staff of life, the very cause of making life miserable. The adoption of yeast was bad enough,

but nothing to be compared to the modern system of milling and refining which makes a loaf of bread worth less than half-a-loaf was formerly, and which will kill a dog if fed entirely upon it.

At first, upon the introduction of yeast for making bread whiter and lighter, one of the bakers of Paris found yeast in Flanders. He adopted its use, and soon found his customers increase to such an extent that it proved a perfect *bonanza* to him. His business rose in prominence and profit by this new rising power in bread. Other bakers, as soon as they could obtain the yeast, also from Flanders, abandoned the use of leaven, and the new bread became established. The physicians of Paris were attracted by it. They brought the exercise of their professional skill to bear on the subject. It came before the College of Physicians there, who thoroughly investigated the whole matter in the most unprejudiced manner.

This was at a time, some 160 years ago, when the physicians of Paris were reputed to be among the most skilful in the world. After a thorough and unbiassed examination, rather leaning in favour of the new bread, which was becoming so popular, yet, in consideration of the public welfare and the future health of the nation, the use of yeast was condemned. They went still farther, and passed a resolution which recommended the legislature of France to enact a law for the total suppression of the use of yeast in bread-baking. The legislature, having in view the interests of the people, and with confidence in the judgment and skill of the eminent physicians who recommended this step to be taken, passed an

act of parliament designed to suppress entirely the use of yeast, which by this time was being made in Paris and also in England.

This act of the highest authority suddenly brought the new custom into disrepute. It caused the people to pause and think. The wiser of them submitted, while others compared the dark loaf with the former lighter and brighter one, and craved for the white. Gradually the bakers, in a quiet way, secured yeast to make a loaf for one and another until, in the course of the generation following, the law was a dead letter on the statute book.

Fashion triumphed over the law as it often does over other things. The people, however, had lived so long on the good old leavened bread, that their bones, nerves, muscles, sinews and tissues were strong and so hardy, that many years of diet on the new bread did not at once work all their damaging effects. These came on gradually.

The insidious foe was stealthily creeping along the pathway towards weakness, disease, and premature decay, like a predecessor whose approach is invisible. Fashion rose in favour of the white loaf, and after the lapse of nearly a century, when two or three generations had passed away—but the law regarding the use of yeast had not passed away—the legislature considered it prudent to cancel the measure and remove the obnoxious statute from the code.

It is not remarkable, therefore, when all the circumstances are taken into account, that, with this great change in bread-making, the dental profession commenced its rise and progress; and it is not

remarkable when you come to think of it, that concomitant with the new system of making whiter flour, so as to have a still whiter loaf, that there began to spread the different forms of dyspepsia, indigestion, diabetes, Bright's disease, with liver, kidney and other ailments, for all of which there arose, as a necessary evil, the various patent medicines out of which great fortunes have been made.

The distress, pain, anguish, and general depression of spirits, weakness of nerves, soul and body, endured by such large numbers of people, were such that they became ready to lay hold of any rope thrown out to them in their sinking position. It is no wonder fortunes are made in patent medicines ; the wonder is, that people are such fools as to live, move, and have their being in such miserable health as to require such stuff. Why don't they live differently and enjoy good health ? Aye ; it may be they do not know how. The following pages will tell them, and, it is to be hoped, will help them.

There is no sensation of joy so satisfactory as that experienced by those who are saved from some dire calamity. That joy may be experienced by every person who is ill, if they will only follow the directions intended to be laid down here for their guidance. Have patience, and read every word. Do not turn from one page to the other, as you, perhaps, have changed from one remedy to another in trying experiments to see which was suitable to your case. No matter what complaint you have, full directions in the briefest possible manner are to be found here, not upon one page nor in any one chapter, but in the whole combined.

But to return to our introduction, which is nearly finished. Owing to the absence of the wholesome mineral salts in the modern new-fashioned loaf, there has sprung up a remarkable sale of mineral waters. Their name is legion. Millions of money have been invested in this comparatively new industry. One London firm alone is said to turn out several million bottles a week. It does not all come from natural mineral springs, by any means. It is manufactured and charged with carbonic acid gas, or otherwise aerated to produce a refreshing effervescent drink. The people thirst for something to drink, while the quantity and quality of mineral salts contained in ordinary mineral waters is far different to that which is found in the wheat berry, as provided by nature and designed to be retained in our bread. If so retained, there would be less drunkenness and less illness ; for, in the absence of the mineral salts in the bread, there comes a craving for something to take their place. The artificial waters, charged with salts and gas, have been tried and found wanting. Whisky and soda have long been tried, with the result that the craving for more increases continually, instead of decreases ; and so drunkards are made.

Intemperance spreads to an alarming extent, causing poverty, wretchedness, disease, and crime. While the advocates of temperance are doing what they can to suppress the evil, they labour almost in vain. If they would but turn their attention to the cause, they might find the fountain head of this poisonous stream in the habits of eating, more than in the habits of drinking. Thirst is not merely

caused by a deficiency of liquid in the system, but by a local disturbance. The more people drink, in many cases, the more thirsty they become.

To conclude this introductory chapter, just consider that with all the advancement in art, science, medicine, and surgery, together with the great discoveries of Harvey and Jenner down to those of Pasteur, Koch, Röntgen, and those of Sir Joseph Lister and Sir James Young Simpson in antiseptics and anæsthetics, called the twin discoveries of the nineteenth century, whose services have been so valuable to mankind; yet there still exists as much illness as ever.

The system of bleeding, blistering, salivating, and cauterizing has been superseded by what appears a more humane and scientific process for effectually reaching the same end, yet there is to-day more general debility, more ailing, more weakness of some vital organ, more dyspepsia, indigestion, diabetes, Bright's disease, neuralgia, rheumatism, heart failure, and other troubles, than in any period of the world's history.

It has been an age remarkable for philanthropy, benevolence, and magnificent bequests to institutions for the care of the sick, providing food for the poor and the homeless. Men, liberally endowed with worldly possessions, have, under happy impulses, or from some more settled principle of duty, devoted themselves to works of amelioration of poverty, disease, and suffering, with a cheerful zeal and as much pleasure as they ever exerted in the acquisition or management of their own fortunes. But, after all that has been done, there is no end of real suffering. The great mass of people are ailing.

It is a deplorable comment upon all the scientific research, inventions, discoveries, improvements and philanthropy of the age, how few people among the higher and well-to-do classes are really in good health from one end of the year to another! How many are asking the questions "What must I do to get well?" "How can I live now as people did formerly, without constantly resorting to remedies of one description or another, with a view of obtaining relief?" The following pages contain very important information in answer to these questions. If the directions are fully carried out, the result will be a revolution of the most beneficent character ever recorded on the pages of history. Scores and hundreds have already experienced the change, and rejoiced in the golden age of their existence. New cures are coming to light, and the most astonishing effects are being recorded, all from the use of the means herein explained. All may be healed. There is no respecter of persons. Nature will do her part if you will do yours. As you read these pages, do not, I pray you again, jump from one part to another, looking for what you imagine will suit your case. Read every word, from the first line to the end, as no one part contains the whole directions; then, after that, you can spring about all you like, for you will feel like a new creature, and enjoy life as you never did before, with a new lease and on better terms.

CHAPTER II.

STARCH-CHANGED CEREALS.

PEOPLE will experiment, adventure, and submit to radical changes in almost everything except in the matter of eating and drinking. In this they allow the prejudices of the stomach or palate to tyrannise over them. These prejudices are more unconquerable than any other. The lack of courage and enterprise in this matter is astonishing. Men will risk their money and venture upon speculations; spend their time in experiments and improvements on almost everything, except on a reformation in eating and drinking. In this they are disposed to do continually the same as they have always been accustomed to do, until compelled to make a change in order to save their lives. In many cases the habits have become so wrought in with the very bone and tissues of their physical organism that a change is most difficult, and, in some instances, almost impossible. They sink at last as if a mill-stone were hung around their neck and cast into the sea. Custom is a sluggard in making reforms.

Sidney Smith, in a letter to Lord Murray, tells him that, having ascertained the weight of food that he could live upon so as to preserve health and strength, and what he had lived upon, he found that between ten and seventy years of age he had eaten

and drunk forty-four one-horse waggon-loads of meat and drink more than would have preserved him in life and health, and that the value of this mass of nourishment was about £7,000. Moderation in food is one of the greatest essentials to health. A person should eat to satisfy hunger and supply warmth and strength to his body ; but many love the good things so much, and enjoy the pleasure of eating to such a degree, that they sacrifice health, money, and the welfare of posterity to the god of Appetite.

There is a very useful, as well as beautiful, structure of nerve work spread out on our tongues, which carries upwards, like an electric wire, messages to the brain of the nice things taken into the mouth. But we must not play with this as a toy, no more than with an electric wire, alive with the lightning fluid, or the result will be disastrous. It is one of the pleasures of life that must be carefully restricted if its enjoyment would be continued for any length of time.

Now to illustrate. In maintaining health, or in recovering health which has been lost, a little romance is useful. The following story is no fiction, nor simply a tale of adventure, but an absolute fact.

Near the Dead Creek, where its waters emptied into the Bay of Quinty some three-quarters of a century ago, but now into the Murray Canal, and upon a naturally elevated plateau, fringed by stately forest trees, stood a lordly mansion, owned and occupied by Col. Bullock, of the Royal Grenadiers. This was away back, when the present

century was in its teens. It was shortly after the American War of 1812, and in Canada, that fairest gem of the British Colonies. My father, some years after this, married the colonel's daughter, who became heiress to the estate. Owing to a rumour that the house was haunted after the colonel's death, the place became deserted and the numerous English sportsmen, who had found it a very paradise, left off visiting it entirely.

The property had become much run down when my father decided to make it his home. His plans, however, were upset by the strange and mysterious noises that prevented occupation of the residence, and the old homestead remained vacant. The cause of the trouble was at last discovered. A huge limb of an old elm tree spread its branches over the eaves and side of the roof. When the wind was in a certain direction this limb of the tree rubbed against the side and roof, so as to produce most dismal noises inside like the groans of someone in distress, and frightened everybody away. When this limb was removed the noises ceased, and the house became occupied, and soon presented a different appearance.

I was born in that house in 1837. When eighteen years of age I was settled in Victoria College, Coburg. I entered upon my course of study with ambition to become a scholar of some eminence, and make as brilliant a career as possible in the world. In the pursuit of knowledge I neglected the Campos and the proper exercise so necessary to health when the mental faculties are strained to their utmost in study. It is not to be wondered at

that my health gave way under such circumstances. It is not to be wondered at, either, that ever since then I have held in contempt all collegiate institutions where hygiene and the care of the students' health is not looked after. In a few months I became so ill that study was out of the question; I returned home.

My father kindly suggested a tour through the Western States solely for the good of my health; this was effectual. After several months' absence I returned in time for the beginning of the next term. I continued my university course for two years and part of the third, when my digestion became so impaired that a cup of tea or coffee at breakfast rendered me useless for study the balance of the day. I tried various remedies, but to no good effect, and had to leave college to return home again once more. The following summer I took passage to Liverpool, and spent the summer travelling in England and on the Continent. In Scarborough, my father's native soil, in York, Leeds, London, Brighton, Paris, and other attractive centres I spent many happy months, so much improved in health that I returned home feeling strong, well, and robust. I did not return to college, but when 24 years of age, I engaged in business, got in love, married, and was prosperous.

In a few years, however, my indigestion returned. It increased rapidly until dyspepsia settled upon me with an awful grip. Relief was only obtained by a few weeks' sojourn at the seaside or in the White Mountains during the summer months. While these trips lasted I had very good health,

but in a few weeks after returning home and to business there was the inevitable return of indigestion with all its melancholy train of sad forebodings and misery.

Where was the skill of physicians? I really do not know. I consulted the best of them, paid them their fees, but got no lasting benefit. I spent years in this miserable state. There was a racking distress for an hour or two after each meal, followed by an unnatural hunger for an hour or so before the next meal. One day I asked my physician for arsenic, not that I intended to commit suicide, for that is the most cowardly act and most despicable in the whole category of crime, but I decided to cure myself, and intended to take it as a tonic. He was alarmed, and urged me to take another trip.

It was in 1882. I had spent twenty-five years in misery, except the few intervals when travelling abroad or in making tours to the seaside. The Canadian North West was just being opened up by the great Pacific Railroad. I started in April for the new country. While travelling over the prairie, camping out, fording rivers, eating coarse foods and enduring hardships such as I had never been accustomed to before I was perfectly well, and could eat, drink, and smoke anything that came to hand. I was so much improved in health and appearance that my children scarcely knew me on my return home.

But before six months had passed, all was changed. Dyspepsia again settled upon me. I became desperate. All sorts of diet and medical prescriptions were taken, but no relief. The result

was only a more aggravated form of indigestion combined with symptoms of diabetes.

One day, while in gloomy distress such as most people in ill-health experience after trying everything, especially vegetable pills composed largely of aloes, rhubarb, podophyllin, caleocynth, or other drugs which give temporary relief, but are almost always succeeded by still more severe trouble, I went to my library and took down an old college book on chemistry. Before laying it down, a new hope sprang up in my mind. Hope is generally a harbinger of relief. The chemical constituents of food was my study. The predigestion of certain foods became the object of intense interest to me.

I had proofs during my experience in travelling that my stomach could digest any food without difficulty while surrounded by an atmosphere loaded with alkali vapours, oxygenated vegetable compounds, ozone gases filled with phosphates, nitrogen, and other imperceptible salts. This led me to study the situation more closely. Starch was the most abundant article in the vegetable world next to wood, and starch was the most indigestible article that I could eat. The bread and porridge, which I had been led to believe were a *sine quâ non* in a healthy diet, contained some 70 to 75 per cent. of starch. Here, then, was the trouble in my case.

It also occurred to me that I had eaten pemican while on the prairie in the North West, and it perfectly agreed with me. I at once resolved on an entire change of diet. I ate beef, sausages made of beef, pork, and prepared wheat, composed of one-third each. I also prepared for myself wheat and

flour in which the starch was changed. In masticating the food the saliva of the mouth in a healthy person effects a change in the starch. The change is very slight, and only a small portion of the starch is changed, but that slight chemical change does wonders for the digestion. I studied this question, and succeeded in changing a good percentage of the starch. On this food I experienced a remarkable change for the better. There was no fermentation which made my stomach like a yeast pot, as it was formerly, when I used vegetable diet containing starch and sugar in their natural state. I was entirely cured of indigestion and kidney trouble. I gained fifteen pounds in three months, which brought my weight up to its normal standard.

I continued well, strong, and vigorous without requiring any medical assistance for over ten years. Before this, every few years I had an attack of some severe illness. Twice I nearly died of erysipelas in the face and head. These attacks caused my hair and beard to become white, and I was prematurely old. After this change of diet, I enjoyed excellent health. The rest of this story will come in here and there as we proceed, as I am not through with it yet.

Some five years ago, or in 1892, there came to my house one evening a gentleman and his wife with a letter of introduction from a friend. They were in my drawing-room when I entered with the letter in my hand which the maid had brought upstairs to me. It was very evident that the man was ill. He related his troubles as chiefly consisting of great weakness. I enquired concerning his diet, and learned that for breakfast he had a good-

sized beefsteak, with fried potatoes, tea or coffee, toast and butter, and sometimes a glass of milk. Now milk is a good diet for young children and young lions, but an adult man or an adult lion does not find it a model food. At eleven o'clock he generally felt so weak that he left his office work and went out for a glass of wine, or whisky and soda. For dinner, at one o'clock, he took soup, roast beef, potatoes, cabbage, turnips, with bread, cheese, pudding, and either milk, tea, or ale for drinking. His evening meal was also a heavy one ; yet his wife declared he was becoming weaker every day, and would have to give up his position soon, unless he could get something to do him good. He felt no trouble from indigestion.

I made enquiries concerning his urine, and ascertained the fact that it was frequent, abundant, and of a high colour, while constipation of the bowels was almost habitual. I made a remark to the effect that he must change his diet at once, or he was in danger of diabetes. I shall never forget the sudden look of alarm and the outburst of painful surprise from his wife when I mentioned the word "diabetes." She came to the hasty conclusion, as so many have done, that diabetes was an incurable disease and did its work most speedily. It took me some time to quell her fears ; but when I repeated over the kind of diet he was to use, she demurred by saying : " He will starve on such a diet."

" Then," said I, " Madam, your husband is evidently starving on the full diet he is taking, and you have stated that unless some help is afforded he must abandon his situation ; so now it remains to

be seen whether he will change his diet as I prescribe, and get well, or go on as usual and get worse."

They both agreed to follow my directions, which were,—to eat no starchy foods, use no sugar, no cider, no apples, no bread except that made from gluten or starch-changed flour, no porridge, except made from wheat that had the starch changed in it, no potatoes, no soup, no wine, beer, nor fermented liquors except a little whisky and soda, and not more than one glass a day, but he was to eat beef and drink hot water all he could. He must not drink milk unless it was boiled, and then very little at a time.

They left me with a glimmering dawn of hope. In three days that hope had increased to a buoyant assurance that he was better. In three months he was an active, vigorous, and healthy man, without using one single grain of drugs or spending one penny with a physician. How true is the old Latin proverb! "*Contraria contrariis curantur*," "Opposites are cured by opposites," as well as the other one, "*Similia similibus curantur*," "Likes are cured by likes."

The food materials necessary to preserve health, strength, and vigour to a person who is in good health, besides water and saline ingredients (and we must not forget the very great importance of these last mentioned), are—(1) nitrogenous substances, such as meat, eggs, cheese, and the gluten of wheat flour; (2) fat of animals, butter, and olive oil; (3) saccharine substances comprised of starch, sugar, molasses in all their variety, such as is contained

in bread, rice, potatoes, and vegetables. The office of the first of these groups is to supply waste of muscular strength caused by breathing, eating, working, or any exercise ; the second is designed to supply heat to the body by their general combustion ; and the third contributes to the same end as the other two.

To sustain health, strength, and vigour, the healthy man requires four-and-a-half ounces of dry nitrogenous food, three ounces of fat in some shape or other, and one ounce of saline elements each day. There is no absolute law or rule for each person's diet, owing to the peculiarity of the vital organism. A difference of climate and temperament modifies the question and justifies the old adage : "One man's meat is another man's poison ;" but in most cases if he eats more or less of these substances than above mentioned, the penalty is imposed by a shrinkage of health and strength. A healthy woman requires about one-tenth less of these substances. The quantity of food eaten each day is a matter of very great importance. It should be distributed over the day as nearly as possible in the following way :—In the morning one-third meat and two-sevenths of the starchy foods ; for dinner in the middle of the day, two-thirds meat and three-sevenths starchy food ; in the evening the last two-sevenths starchy food ; and for half-an-hour after each meal there should be a resting time.

At every meal proper mastication of the food is very necessary. The amount of maceration which the food receives in the mouth by the combined action of the teeth and saliva is very important to

digestion. The starch undergoes a change by this action when the saliva is in a healthy state. Exercise is also of the greatest importance for all who live on such a diet as the above ; and this exercise means more than is generally supposed. It means bringing every function of the body, and every part of every function of the body, into activity. This activity should be continued regularly for some time every day, and a good judgment must be exercised so as not to overdo it.

The labouring man or woman who enjoys good health on the above diet would not and could not be perfectly healthy without the continued labour which causes every function of the body to be brought into activity, so that the food digests and assimilates to give the necessary strength. Let a person of sedentary habits follow the same diet without the same exercise, and he soon pays the penalty. Children and animals enjoy good digestion because they take plenty of exercise, which is generally harmonious and agreeable. The perpetual spring of pleasure in children's lives helps their growth and health.

But what is the ordinary man to know about nitrogenous food, albuminous food, carbo-hydrated food, or the quantity of dry nitrogen there is in a pound of roast beef, or how much starch and sugar there is in the cereals, fruits, and vegetables which he eats from day to day ? The brief way in which I have placed the three classes of food together with the succinct explanation of the same is the very briefest I have ever seen, and yet it cannot be fully understood by the great mass of people who desire

health above everything in the world. It is all very vague ; it is inconceivable, except to one who is educated up to the subject in some degree.

This being the case, let every person who is not in good health, whose strength is waning, whose food does not digest nor properly assimilate, cease taking the food and turn at once to lean beef or other lean meat, and to bread and cereals which have the starch changed in them, so that there will be no fermentation of the foods in the stomach to produce flatulence, wind, and distress. Cease entirely the habit of drinking tea, coffee, or anything else during the time of eating, and for some three hours after. If you will but adopt this system, and drink two glasses of hot water at a time, one hour or an hour and-a-half before each meal, and upon getting up in the morning, you will unquestionably realise a remarkable change in the course of three days from the commencement. If you faithfully follow it up, you will soon experience a relish for the new diet and find no trouble from thirst.

Thirst generally comes from an abnormal state of the stomach, except in times of excessive exercise and among men who labour hard, and even then hot water will quench their thirst much quicker and much more satisfactorily than any other drink. The experience of the men who were in the Black Hole at Calcutta proved, when they got water, their thirst was increased by drinking. One of them who ceased drinking it, and sucked the perspiration from his shirt sleeve, was among the survivors. If hot or tepid water were adopted as the beverage for the million, instead of the myriads of artificial,

fermented, or gaseous drinks that are now in use, there would be a revolution in favour of health, strength, vigour, prosperity, and happiness in the world, such as has not been known since the days when Israel fed on manna for forty years in the wilderness, and escaped disease of every kind because their food and drink were such as they required.

In reference to starch-changed cereals as an article of food, I will state here, most emphatically, and without fear of successful refutation, that they are far superior to gluten in all cases where that article is considered necessary. Gluten will sustain life in the absence of all other food, but it is a miserable existence, and a life not worth living. Gluten used alone does not produce permanently satisfactory results. It is very unpalatable; so much so that many people troubled with diabetes declare that they would rather die than diet on it, because they find it so disagreeable.

I once saw a person dying, when there appeared on his countenance signs of dissent at what was going on in the room, but he could not speak. So in cases of diabetes where gluten food is recommended, the patients endure it; they may show signs of dissent, but they have to endure it because it is prescribed by the physician. Nature never intended gluten to be used alone as an article of food. There is in the wheat grain a combination of gluten, fibrine, casein, albumen, and starch. There are three or four times as much gluten in wheat than in rice, maize, beans, peas, or potatoes. To obtain the gluten the starch is washed out, which is a

difficult and expensive job, as it requires about 1000 lbs. of the best wheat flour to produce 100 lbs. of pure gluten. This was never intended to be done for hygienic purposes.

The gluten was intended to assist in the change of the starch. The starch in wheat or any other cereal, also in vegetables, must be changed before it can be digested. Starch is never found in the blood nor in the tissues. The first act of transformation in the starch is naturally effected by the saliva of the mouth, as already referred to. The gluten assists in this change, while the starch assists the gluten in giving nourishing properties to the cereal. It is the presence of gluten in wheat flour combined with the starch that renders it so pre-eminently nutritious. The two must not be separated, but where the saliva is not sufficient from any cause, or not healthy from the effects of indigestion, then the starch requires to be changed in a similar manner, and in connection with the gluten, as it is done naturally by the saliva of a healthy, robust person. This can be done; it has been done; it is done; and this renders the gluten and starch combined a veritable anti-starch food, so far as its effects are necessary in building up tissue and affording health, strength, and vigour. It digests perfectly, corrects acidity, and thoroughly assimilates so as to give the greatest possible satisfaction.

I do not claim to be the first to change starch, but the first to change it to that stage where the change resembles and is almost identically the same as that done by the ptyalin in healthy saliva. If physicians will test this fairly in connection with the usual

remedies and cautions necessary in cases of indigestion, dyspepsia, and diabetes, they will soon be convinced of its value. After testing it for over ten years I have never in any case found it to fail. Besides, it affords pleasure in eating; it is comparatively inexpensive, and so within the reach of all.

CHAPTER III.

THE DIETETIC SYSTEM.

THERE are many systems. The two great leading ones in *materia medica* are allopathy and homœopathy, now well defined with their distinctive means of treatment. The hydropathic system has also made some headway ; so has the eclectic, electric, galvanic, and other systems ; the latest requiring mention here is an excellent treatment which a lady specialist of London has done much to bring into prominence.

Her book on the beef and hot water treatment for all sorts of diseases, has done a splendid work to systematise a means of cure ; but the rules and regulations, as laid down, are rather vague and somewhat contradictory, and much of the matter is unprofessional and offensive to a number of physicians and other excellent people, especially to vegetarians, so that many of the excellent things she says, and more excellent facts she gives, are lost to some extent by the way she puts them.

As an example, she condemns the use of whole-wheat meal in one edition of her book, and in a later edition recommends it as a wholesome and excellent diet. Her acknowledgment of the mistake is certainly very commendable, but still there is such a vagueness about this, as on other subjects,

that many may perhaps be led astray. Whole-wheat meal means in one shop a poor, unmerchantable white flour mixed with horse-food bran, both of which articles are rubbish for the human system, and unfit to eat.

In another shop you may find whole-wheat meal, so called, where the whole wheat as it came from the farmer's waggon, whether white, red, or mixed, is ground up together, and sold as a wholesome food because it makes a dark-looking loaf; and because it is dark it is considered by the ignorant as healthy. I say ignorant, because no matter how much persons may know of science, or how well educated in general, they are ignorant of the properties of the loaf of bread they eat if they think one is wholesome because it is dark and the other unwholesome because it is white.

The only whole-wheat meal that is fit for human diet is that made of selected wheat, and ground after being thoroughly cleaned by taking the fuzz from the ends of the kernel and dirt from the crease, and then removing the outside bran, which is a woody fibre and of the substance of straw, called the "epicarp," as well as the "pericarp" which covers it. These two outer layers must be removed, but in doing so the germ and edible layers which are under the epicarp must not be disturbed, but all left in the product which is properly understood as Whole-Wheat Meal. It makes a golden brown loaf, fit for a king and one of the most excellent articles of diet that can possibly be used by any person whether sick or well. It makes the bread that may with pride be called "the staff of life," for it

contains all the nourishing and easily-digested materials which nature put in the wheat berry for the sustentation of human beings.

How very few there are, as well as the enthusiastic specialist already referred to, who understand the way whole-wheat meal should be made? They consequently buy and eat bread, supposed to be right, but which contains the woody fibre or too much germ, which acts as an irritant or excitant, giving relief for a while, but soon followed by the worst form of indigestion, similar to what follows the use of pills or vaunted patent medicines.

I will refer briefly here to my own case again. I was for a few months living in one of the large cities of England, and did not know where to get a supply of the foods that I had lived upon so long and with such satisfaction. There was a certain bread advertised in nearly all the magazines and newspapers of England as a specific for indigestion and dyspepsia. I enquired of a shrewd business man concerning this bread before using it.

My question was :

“What’s in it?” meaning, What is it made of? though not taken as meant. He replied: “There is £10,000 a year in it.” Some time after this I got the bread in question, and found it very palatable; and lived on it as far as the bread part of my diet was concerned, and in two months I had as bad an attack of indigestion as I had in former years before I knew how to diet myself.

I discontinued the use of that bread, consulted a physician of the highest repute, whose skill and common sense, together with his prescription, were

so in harmony with my own views (being principally dietetic) that before leaving his room I felt that I should soon be well again. This is an age in which people are easily gulled. If an article of diet is palatable, and presented in an attractive form with extensive advertising, the people buy it without thoroughly enquiring what it contains and how it is made, when in reality it is an enemy in the form of an angel.

In using whole-wheat meal, and every one should use it, see that it not only possesses the name of some responsible firm as makers, but that it is all and always of the quality that will bear the strictest analysis. This very article is so important to the welfare of the people, that it should be inspected by some competent officer in a similar manner and with as great care as milk, whisky, sugar, and other articles of food and drink are inspected. This bread has become so extensively used as an antidote to the impoverished, indigestible white loaf, that the makers of it are legion, and all are anxious to make £10,000 a year out of it.

As to dietetics as a system of treatment which heads this chapter, the difficulty is to formulate a system all at once. No system has been developed suddenly. The principles develop gradually, and as they become tried and approved they grow into a system which still improves and finally becomes established.

The science of medicine had been centuries under development before Galen brought it into its almost perfected state in which we have it to-day.

Hippocrates, who flourished some 2,300 years

ago, extended surgery to greater perfection than it had ever been before, and this science has been improving ever since.

Dr. Jenner made the first experiments in vaccination in 1797, just 100 years ago, and the practice has spread throughout the world. Although it still has its bitter opponents, as all new theories have, and as dietetics have; yet, when tried, proved, and found successful, they grow into favour and become established if there is merit, science, and common sense on their side.

A physician of note with a large practice in the city of Montreal, told me, while in conversation on dietetics that the best dietetic institute he knew of was the Windsor Hotel in that city, where everything good to eat could be had with cooking and serving in the most complete form possible. This was his expressed opinion, yet in his practice he recommended certain special diet.

The great physician just named, Hippocrates, taught the importance of preserving health by means of dietetics, and that the province of the physician was to direct people how to live so that they would not be sick, and to practise surgery more than medicine.

Dr. Young divided the remedies of the *materia medica* into four classes, and the first and most important class consisted of air, diet, habits passions, etc. Sir Richard Phillips said: "The mixed and fanciful diet of man is considered the cause of numerous diseases from which animals are exempt. Many diseases have abated with changes of diet, and others are virulent in different countries,

arising from peculiarities. The Hindoos are considered the freest from disease of any race."

It appears that the high, honourable, and invaluable profession of medicine contains some distinguished men who have time to look into the abuse of dietetics as a great and mighty cause of illness, and a change of diet as an equally great remedy. Others again do not stoop to the simple remedies. They are wrapt up in their armour of scientific research, with a breastplate of new discoveries, holding out the spear and staff of specifics, their arms and legs glistening with diplomas, while their whole body, head and all, is covered with a coat of mail consisting of caustics, astringents, excitants, and cathartics, enough to frighten an army of ordinary mortals as did Goliath of old; while there steps up an unpretentious youth with the sling of dietetics, and offers to accept the challenge; and soon the great giant has fallen, and David is the conqueror.

Dietetics in my case and in thousands of others effected a cure when all the skill of physicians failed. Dietetics is the youth that is now conquering disease and saving the people from illness, and conferring upon humanity the greatest blessings of the age. But dietetics is not such a youth after all. Hippocrates over 2,000 years ago practised this system. Moses may be said to be the father of it. Daniel and his three companions, all men of science, skilful in wisdom, cunning in knowledge, and of great learning and ability, while captives in Babylon, 2,500 years ago, lived on pulse and water, instead of the "varied and fanciful diet" of the day.

The result was they became fairer and fatter in flesh than others who lived on the king's meat.

On the other hand, Belshazzar drank and feasted with his lords, his wives, and his merry companions, and died in the very prime of life. Our first parents were turned out of paradise because they took forbidden food; and millions are losing the paradise of health because they eat the wrong food, and too much of it.

The scale of diet in the royal navy is thus given in the regulations:—"One pound of bread, one pound of fresh meat, half-a-pound of vegetables, one and-a-half ounces of sugar, quarter of an ounce of tea, one ounce of cocoa, and a quantity of beer." Besides this they have once a week half-a-pint of oatmeal and half-a-pint of vinegar. The daily allowance to a common soldier in Great Britain is one pound of bread and three-quarters of a pound of meat, making a total of 196 ounces of solid food weekly.

Dives, another ancient character, who was rich and clothed in purple and fine linen (which did not hurt him any, but his diet did), he lived sumptuously every day, and died about as soon as poor Lazarus did, who ate the crumbs that fell from this rich man's table.

A great dinner or feast is often followed by the sudden illness or death of some one who over-indulged at it. The wicked violators of the law of proper diet do not live out half their days. Here, there, and all over, among our friends and acquaintances, one after another die in the prime of life because they eat and drink too much. They are

turned out of paradise, and where they go to under such circumstances is not for me to say ; but I do say it is a disgrace to die under such conditions when a change of diet might have saved them, and so cheated the grave of its victims.

This reminds me of St. Paul's advice to Timothy : "Take a little wine for thy stomach's sake, and oft infirmities." A *little* wine is often a good thing, and all good things require to be taken in moderation if the pleasures of life are to continue for any length of time.

And how does the Church stand in relation to this great system ? There is one feature of the teachings of the Church of England that appears to recognise the importance of the body as well as the soul of man. In the first hymn (A. & M.) there is a definite reference to it :—

" O may our inmost hearts be pure,
From thoughts of folly kept secure,
And pride of sinful flesh subdued,
Through sparing use of daily food."

In the Communion Service also the body is first recognised. In the presentation of the bread and wine the priest says : "Take, eat, . . . , and preserve thy body and soul." At the beginning of every service, morning and evening, there is this exhortation : " Ask those things which are requisite and necessary, as well for the body as the soul."

The Methodists, unfortunately, have changed this old formulæ by transforming the sentence so as to make it read, " preserve thy soul and body," placing the body as of secondary importance.

The Roman Catholics also put the soul before

the body in their catechism, all of which has a very degenerating influence on the physical and hygienic attention the body requires. This is not in accordance with the teachings and practices of the Great Healer, who went about doing good in the most eminent manner, and who emphatically insisted upon self-denial, which is the solid pedestal upon which the system of dietetics is based.

His care was for the body first, and He instituted the gospel of health. If the body is preserved in purity and health according to His teachings, there is no danger of the more precious and priceless gem which the body is the casket of. When the casket is damaged, shattered, defaced, and broken to pieces the soul still holds possession, but when the casket is destroyed entirely the soul leaves it to return to its immortal home.

If the tens of thousands of our clergy studied, taught, practised, and preached more of the gospel of health there would be hopes of an early dawning of the millennium glory.

If the free dispensaries in our large cities would distribute more sound teachings in dietetics to the poor people and less drugs, there would soon be less free dispensaries needed and far greater health, strength, and physical happiness experienced from generation to generation.

Now, to come to the point in regard to dietetics as a system, look again at the four classes of the system of medicine, or the remedies of *materia medica* :—

1. Air, diet, habits, passions, etc.
2. Caustics, astringents, etc.

3. Excitants, cathartics, etc.

4. Specifics, etc.

Among these remedies first preference is given to air, diet, and habits ; the very pivotal points of the system of medicine are the same as in the system of dietetics.

To form a complete system, as already stated, is not done accurately all at once. There are combinations of parts to be classified into one grand whole ; a collection of rules and principles, a putting together a number of things acting together in harmony, so that the entire scheme may be demonstrated and then explained.

The system of dietetics may therefore be classified by combining the four classes of *materia medica* into the first class, viz., air, diet, habits, passions, etc. The principal diet for people who are ill, weak, delicate, and predisposed to any disease, is minced beef and cereal foods in which the starch has been changed, and their drink should be hot or warm water, and not taken with their meals, but night and morning, before going to bed and upon getting up ; then during the day, about eleven o'clock in the forenoon, and four o'clock in the afternoon. The minimum quantity of hot water for an ordinary person should be two tumblers full at a time, or four pints a day ; this is half the allowance of beer for each man in the royal navy, and will do more good. The temperature of the water should be from 80° to 100° or 120° Fahr. A small glass thermometer may be used, but is not at all necessary, as the palate will indicate how hot you may drink it ; tea is generally taken hotter than

this. When in the act of drinking, do not gulp it down, but take a little at a time, and if it becomes lukewarm add more hot water from your pitcher so as to keep up the temperature.

If you are very warm after drinking it, cool off gradually before going into a colder temperature. Avoid drinking anything else or eating anything else for several days, until you thoroughly test this remedy. Persons of sceptical views have used this remedy, and in twenty-four hours realized so much benefit that they have become the strongest advocates of the system.

I do not recommend the exclusive use of minced beef and hot water, although some do, and no doubt a considerable amount of good has resulted from it, as a complete change of diet, which is so important in certain cases. I do not believe the kidneys are over-worked by it in their effort to throw off the nitrogen, for that is their special duty, nor will the bowels have too little to do for lack of the usual quantity of mineral salts and fat, neither will the liver be injured by hot water, not so much in fact as by hot tea.

In the chapter before this the quantities of the different food elements are stated. A healthy person requires four-and-a-half ounces of dry nitrogen, three ounces of fat, and one ounce of mineral substances—nothing more, nothing less, so the beef and hot water alone are excellent remedies as affording a complete change in diet; but to continue the exclusive use of them as a therapeutic diet for a lengthy period is not advisable.

But the best and safest diet is a combination of

minced beef and bread or biscuits made of flour in which the starch is changed. Gluten flour is sometimes condemned, because there is starch found in it. It is difficult to get such flour entirely free from starch. But it is not difficult to get flour and porridge food, too, in which the starch is changed.

Analysis does not always reveal this fact. In most cases the analyst finds much starch in gluten flour, and is disposed to condemn it as useful for indigestion and diabetes unless he uses his microscope. The analyst even then does not, unless he is one skilled in the science of digestion, realize how little of the starch it is necessary to change, or how little the change is, to be like the change made by the saliva on the starch in order to effect the digestion of the whole. In doing this, if he finds the starch to be shrivelled up, with many of the granules ruptured, the starch, though present, is changed and rendered easy of digestion.

This has now become an established fact, the importance of which is not yet realized by one-half of the medical profession. This starch-changed food effectually corrects acidity, and affords more complete nutriment than even pure gluten, which is very expensive and hard to get, as there is only some 10 per cent. of it in wheat.

With such a combination of diet the kidneys draw off the nitrogen through the urine, while the stomach has the hot water which evaporates, so the skin becomes moist. The stomach, kidneys, and arteries spread the elements of food throughout the whole system. This affords assimilation, which is as important as digestion.

It must be remembered that the hot water is only taken between meals, which provides perspiration if you take it hot enough, and perspiration for a man in health should be at least twenty-eight ounces in twenty-four hours. All the various chemical changes are going on in every part of the body all this time. The secreting glands or membranes handle the food substances in a perfectly natural manner until they are absorbed by the urine and blood. The result is exhilarating and most satisfactory to all the organs of the system.

It affords the organs rest after being taxed with food and drink at the same time, and in such abundance for years, that the stomach had become like a seething pot of fermenting yeast. How much more sensible is this, than to keep on drinking after each meal to quench the thirst created by eating and drinking at the same time, until bloated and heavy, and then drink more to try and get the weight removed ?

Stick to the minced meat and potted beef with starched changed cereals. Begin this part of the system at once, with plenty of hot water between meals. Let these healing streams abound, and you will soon abound with new life, health, and vigour. With this diet, and moderate rubbing the bare skin of your body with your own hands from head to foot, so as to produce a glow of heat, you will soon feel that dietetics and massage are the best friends the body has ever become acquainted with.

CHAPTER IV.

DIET AND TISSUE.

CELLULAR tissue or membranes extend through every part of the body under various names and functions. They are the prime agents of our whole physical system, they constitute tone and vigour; they protect and unite every organ. In their cells salts are secreted for bones, and gelatine for cartilages. They consist of crossing threads, interminably mysterious and most invaluable. They are agents of immense importance, whose careful attention and vast usefulness should be studied.

Besides the cellular tissues there are the cutaneous tissues. A fair complexion arises from the transparency of the skin, which shows the blood in the cutaneous tissues. But it is the former we have chiefly to do with at present.

The vital parts of our bodies are made up of 240 bones, nine kinds of articulations or joinings, 100 cartilages and ligaments, 400 muscles and tendons; besides blood, arteries, veins, glands, stomach, intestines, lungs, heart, liver, kidneys, and lacteals. There is no wonder it took so many centuries to formulate *materia medica* into a system, and still, as Dr. Currie says, "So great are the difficulties of tracing out the hidden causes of disorders, that the most candid of the profession lament how unavoid-

ably they are in the dark, so that the best medicines, administered by the wisest heads, often do the mischief they were intended to prevent."

They are not discouraged, however, by the difficulties met with. They plod on and overcome them as well as possible. They would not be the heroes of the profession, as many of them are, if they yielded to discouragement.

Professor Gubler, whose study of tissue has been very extensive, has sounded the note of warning in regard to this prime agent. He asserts that the "degeneration of the arteries" is common among vegetable-eating people in France and elsewhere. His finding only confirms the old and oft-repeated opinions of the greatest physiologists concerning the absolute necessity of the nitrogen and carbon elements of food to prevent degeneration of tissue. The essential saline properties which nature put in the food, but which are eliminated from the white loaf, such as potash salts and alkaline phosphates, may be the principal cause of the degeneration of tissue among people who use chiefly a vegetable diet.

Another cause, no doubt, is in the fancy mode of cooking in this age of cookery, in order to keep up with the excessive demands of fashion. As bread is "the staff of life," when properly made from the whole wheat berry, minus the outside woody fibre, so many vegetables, if properly cooked, would yield greater satisfaction to the tissues. But, alas, the bread and the vegetables are rendered in many cases unfit for tissue food. How many soak the vegetables in cold water to keep them fresh, and

others blanch them in hot water to please the eye, or boil them and strain off the essence to keep the depleted residue? Kitchen science is terribly defective in its practical rendering of starchy foods so as to be fit for the stomach.

In this way the soluble salines are almost entirely extracted, leaving the less soluble lime and magnesia, the very elements we possess already, in too great abundance.

For example, one pound of white bread contains seven grains of potash, while ten pounds of whole-wheat meal contains twenty-seven grains of potash. One pound of potatoes, peeled, soaked, and boiled contains twenty-one grains of potash, while the same quantity boiled in their skins contains thirty-seven grains of potash. It is nearly the same with other vegetables, which are spoiled and rendered so effective in the production of "degenerated tissue."

Like a ship built of rotten timber, people who eat such food go very well in good weather and with a light load; but when they come to bear a little extra load or undergo extra fatigue the arteries, those noble agents who do their utmost to bear with the whims and fancies of people, give way, and there is a break down. Tissue is starved; all, however, do not suffer alike. Some soon fail, while others, endowed with a first-rate viscera, feel the loss much less.

Those who have a good reserve force stored up can endure the strain longest. Persons of rheumatic tendencies, sooner or later, get uric acid in the blood, as the faithful arteries could not keep up with the demands upon them; or, if it is not uric

acid, it is some other poisonous form, caused by the mal-assimilation of the food which was unsuitable to tissue. Some suffer from indigestion, dyspepsia, nervous irritability, neuralgia, sciatica, lumbago, gravel, heart trouble, or diabetes. There is weakness, pallor, distress, or inability to endure fatigue, and when trying to rest they do not rest. The poor tissues are starved.

Tissues are in reality the elementary portions of the body. The heart, for instance, is an organ constructed out of muscular tissue, connective tissue, nervous tissue. Each of these tissues manifests the same properties in the heart which it manifests in every other organ, just as the various substances out of which a ship is constructed—wood, copper, iron, etc.

Life is a misery. They exist rather than live, rousing up now and then under some stimulus, only to relapse into greater weakness. Their only hope is in the system of dietetics. Tissue does not want medicine under such circumstances, but proper food and water. Not whisky, tobacco, nor opium, but good beef, nicely mixed with prepared cereals, and plenty of hot water four times a day, for nutritive purposes, whether you are thirsty or not.

To illustrate still further the effects of different foods, take one pound of white bread, which yields 90 grains of strength and 1,900 grains of warmth, compare it with one pound of whole-wheat meal, which yields 120 grains of strength and 2,700 grains of warmth, or an average of 40 per cent. more strength and warmth in the latter than the former. In fresh beef, per lb., there are 172 grains

of strength, and 2,300 grains of warmth, or nearly double the strength, and over 25 per cent. of warmth, as compared with the white loaf, and 40 per cent. more strength, and 12½ per cent. less warmth than in the whole-wheat loaf.

But when the starch in the whole-wheat loaf is changed, its nitrogenous qualities are enhanced, so that as compared with beef it is the better food of the two, and it is well known that gluten will sustain life indefinitely.

The very best diet, therefore, is beef and prepared cereals as recommended in this book, throughout nearly every page. Liebig declares that animal flesh and blood, with vegetable albumen, fibrine, and casein are tissue-making foods, because they are capable of making blood; and from the blood all tissues are formed.

If people would eat more of this food, their strength would be greater in proportion, and tissue would be satisfied. The glory of a man is his strength, not his corpulence. What will a man give in exchange for his health? What will it profit a man if he gain the whole world, and lose his strength? A proper combination of food is necessary for the strength and warmth required, according to climate, active or sedentary habits.

The English nation is composed of beef-eaters. Beef and mutton, and mutton and beef, the people will have. They have secured the name of John Bull, which is proverbial all over the world. If beef were 50 per cent. higher in price, they would still eat it and flourish. The immense cargoes of beef and mutton laid down in Liverpool, from foreign

countries and the colonies, every week, besides what is laid down in London and other large centres, together with all the produce of this country ; notwithstanding all this, there is not enough to bring down the prices very much. It is readily consumed, and English workmen are kept in comparatively good health because they eat so much of it. If they would eat more starch-changed cereals, and bread made of whole-wheat meal with their beef, and less white bread, they would be heartier still, and soon there might be exploits recorded of their strength similar to what was said of the butcher in Henry the VIII's time, that he could fell an ox with the force of his fist.

Educated, intelligent, thinking men, begin to realize the necessity of a properly-selected diet for themselves and their families, while the great bulk of people do not consider. The raisers of fancy cattle and horses, and the more intelligent farmers, apply scientific laws in the management and care in breeding their prize animals, so as to develop their strength and beauty, their size and value. The farmer has learned how to feed his land, but not how to feed himself ; he has learned how to feed his pigs and cattle, but not how to feed his children. They are expected to live, grow, and develop, mentally and physically, without that care and attention which are so necessary, and which are actually bestowed upon the lower animals.

In all the walks of life few persons give heed or take pains to study Nature's laws in regard to their daily food. They may pray, "Give us this day our daily bread," but do not watch or consider the

quality of the bread they eat so long as it is sweet, fanciful, and, above all, well advertised. They do not take pains to enquire whether it contains a combination of the elements found in the wheat as it came from the hand of Nature, with all its phosphates and other mineral salts. If they could but realise that the archfiend of indigestion is the white, new-fangled flour, they would stop and enquire how it is that in the whole history of human life there has never been a period when there existed so many unsatisfactory stomachs.

Some people declare that their digestion is perfect, but the trouble is in another direction altogether. My dear friend, that trouble in another part arises from the starvation of tissue, or the improper nourishment of tissue, which primarily depends upon the food you eat. Do not be deceived.

The following story of Dean Barwick is to the point. He was harassed day and night with a continual cough, followed by spitting blood, and afterwards by consumption of the lungs and a wasting away of the whole body. He had always been very abstemious in his habits, but now he changed his diet entirely. He began to live on oatmeal and barley gruel, made of prepared groats and prepared barley.

I may explain here that these articles are made, or should be made, by changing the indigestible starch into dextrine, and consequently are the healthiest foods in the world, and will preserve life indefinitely, next to gluten, when nothing else is taken, especially the prepared barley.

Dean Barwick lived on these articles, took no beer, wine, nor any manufactured liquors, but drank water to quench his thirst, and he got well.

An entire change of diet is often most valuable. St. Paul seemed to know this when he recommended to Timothy to "take no longer water but a little wine for his stomach's sake and his oft infirmities."

A person accustomed to a diet, no matter what it is, may often get relief by an entire change in his diet. He had far better do this than use drugs. A change of air is often recommended by wise physicians, and is frequently beneficial; but a return to the old home and occupation often brings back the old symptoms again; but not so in the change of diet,—that is, an entire change in diet,—a continued change in diet which must be as radical as the change of air or locality. It is not always necessary to go to the sea side nor mountain peak to get the desired change of air, for often the removal from one town to another, or from one part of the same town to another part, will result in an immediate improvement. Children especially are benefited by a change of air.

But man is not a nomad, though he may inherit some of the nomadic tendencies of his ancestry. It costs a great deal to make such changes, and it is not every person who can stand the expense, while the change in diet is within the reach of all, and there are abundant proofs that the result is as immediate and far more lasting, because a change of diet changes the blood. The purpose of digestion is to make blood. It prepares the food for its entrance into blood and the formation of tissue. This great

river of life, when pure from proper food, undergoes many changes in its route, carrying vigour, health, and strength to every part of the body, no matter where a person resides.

In this change of diet it is certainly understood to include a change in drink. Water is the best drink in the world. An abundant supply of pure soft water is essential to our health; it increases the power of the gastric juices. If cold water does not suit, take it hot. I venture to state that if Timothy had turned from cold water to hot, his stomach would have been better than from the wine he was recommended to use a little of.

Water is capable—and the only fluid that is capable—of circulating in all the tissues of the body, so as to penetrate its finest arteries without irritation. It is water alone that forms the fluid portions of the blood, and thus serves to convey the nutriment to all parts of the body through the tissues, for their repletion, growth, and nourishment. It is water also which takes up the decaying particles and conveys them by a most complicated and wonderful system of drainage from the body. The water should be soft and pure—and by pure is meant pure,—free from organic matter, especially lime; and where this cannot be had, a small filterer or cistern for rain water should be secured; but let it be distinctly understood that if rain-water is used it must be fresh. Rain-water standing in a cistern long is unfit for use even when boiled. Pure, fresh rain-water is an excellent drink. Hard lime water is very bad.

Hoffman said: “If there be any universal medi-

cine in nature it is water ; for by its assistance all distempers are alleviated or cured, and the body preserved sound." Lettsome ascribed health and wealth to water, and happiness to small beer, and all diseases and crimes to the use of spirits. As the sea is said to be without bottom, so water is without doubt most essential to the tissues of the body, and those noble agents are never displeased with it, especially if it is warm or even hot and pure.

But some will say: Why not cold water instead of hot? Cold water often bloats you up, causing weight and oppression, while hot water does not ; cold water is some fifty degrees lower in temperature than the body, and takes great energy from the stomach to heat the water up to its own temperature ; and because cold water does not quench the thirst like hot water does, one is liable to drink too much of it ; cold water is often dangerous when the body is very warm.

A young man, on a hot summer's day, was exercising himself to such an extent that he became very warm and thirsty. He walked some distance to a cool spring and drank deeply of the cold water, and in a few minutes after was dead. His companion warned him to be careful ; but it was too late. Such a fatality could not happen with hot water. Cold water and ices have their proper uses ; so have spirits ; so has poison.

To make this matter of dietetics and tissue clearer, if possible, so that every person who reads may realize the great importance of keeping the tissues of the body in a healthy state by the use of food such as they require, I will illustrate by another

reference to the daily needs of man. The four-and-a-half ounces nitrogen, three ounces oil or fat, and one ounce of mineral salts, as stated already, are necessary,—no more, no less, even for a person in sound health,—to keep the body in health, strength, and vigour. While it is not absolutely necessary to drink water at 80° , 100° , or 120° , it is very necessary to avoid more or less of the substances above mentioned in our food.

It is far more necessary to be particular in this matter than it was for Mr. Phileas Fogg to discharge his old and valued servant for bringing him shaving water at 84° instead of at 86° degrees Fahrenheit. If the organs of the human system were as exacting as Mr. Fogg, there would soon be a more perfectly balanced machine or the dismissal of many more lives. The tissue of the body is like the main-spring of a watch, and requires at least as much care. In one pound of beef without bone there are two and three-fifths ounces of nitrogen, and four and four-fifths ounces of oil or fat, and four-fifths ounces of mineral matter. To take out the oil or fat; and use two pounds a day of lean beef, you have nearly a perfect supply of all the necessary elements. In a pound of pork or bacon there is nearly three times too much fat, while the nitrogen is deficient. In milk it takes seven pounds to produce the same quantity of nitrogen as is contained in beef, with the same quantity of fat and mineral matter. Seven pounds of milk are therefore equal to one pound of beef, but milk contains 87 per cent. of water to 50 per cent. in beef, and the stomach is distended so much more by milk than by

beef. Of potatoes it takes thirty-two pounds to produce the same quantity of fat as in one pound of beef, while it takes one hundred and twenty pounds of potatoes to produce as much nitrogen as one pound of beef, and at the same time the thirty-two pounds of potatoes first mentioned would yield three times more mineral salts than the system requires, together with an abundance of starch that would give diabetes to almost any person in these days of varied and fancy diet.

The cereal products are more in harmony with milk and beef, except for the starch. They contain from 50 per cent. to 75 per cent. of starch, and are very deficient in nitrogen. The starch must be changed or turned into another substance, or a certain proportion of the starch must be changed to render the cereal products of the earth suitable for the diet of people who are in ill-health.

Especially is this the case when the present system of milling takes out of the flour the invaluable mineral salts. The crust of the bread is wholesome, but the inside of a white loaf softly baked is nearly all starch. I have often at my table taken the inside portion of a piece of bread, squeezed it in my hand to a ball of tough dough, then put it in a glass of water and let it stand until next meal, when I would shew it to my children to let them see how it would act in their stomach if they ate it. They soon became satisfied to eat the brown loaf containing all the essential elements of the wheat, or gluten biscuits in which the starch was changed. In illustrating this subject I have compared tissue to the main spring of a watch,

which reminds me of the following, taken from a tomb in a churchyard found somewhere in my travels.

“Here lies, in a Horizontal position, the Outside Case of Grange Roulleigh, Watchmaker, whose abilities in that line were an honour to his Profession. Integrity was the Main-spring and Prudence the Regulator of all the Actions of his life. Humane, Generous, and Liberal, his Hands never stopped till he had relieved distress, so nicely Regulated were all his Movements that he never went wrong, except when set agoing by People who did not know his key; Even then he was easily set right again. He had the art of disposing his Time so well, that his Hours glided away in one continual round of pleasure and Delight, till an unlucky Moment put a period to his Existence, Nov. 14, 1802. He was then Wound up in hope of being taken in Hand by His Maker in another shop and thoroughly cleaned for Keeping Good Time in the next world.”

The watch is a piece of skilful mechanism, and requires attention at the hands of the one who carries it. If it is out of repair, an experienced hand must be employed to put it right. It is not every one who understands a watch, but they might learn; and so every one may learn how to maintain health.

The sustentation of the body and the repairing of its wastes by an adequate supply of wholesome and nutritious daily food is a subject of such general importance that it certainly deserves a greater share of attention than it receives. After

giving in these pages some dry figures and sage advice, a little spice by way of a story or illustration may make the dish more palatable ; anything, in fact, bearing on the subject, so as to secure attention and get people to read, study, and understand the mechanism of their own bodies.

Just think : Some people chew tobacco ; the Hindoo finds contentment in beetle-nut and lime ; the Patagonians find a bit of guano a luxury, while the Styrians grow fat on arsenic ; English children delight in sweetmeats, while in Africa they prefer rock salt ; the Frenchman likes frogs and snails, while we eat oysters, eels, and whelks.

The Esquimaux find train-oil a delicacy ; the Russian luxuriates on hide or tallow ; the Chinese on rats, dogs, and shark fins ; the Kaffir on elephant's foot or trunk and lion steaks ; while the Pacific Islanders preferred, formerly, a piece of cold missionary to any other food. Others feed on rattlesnake's and monkeys, and pronounce them capital eating. Such is what Dr. Simmonds says are the varied and fanciful diet. The piece of "cold missionary" is not simply a joke ; though cannibalism is now almost a thing of the past.

As the nations of the earth become civilized, according to our ideas of civilization, they make tremendous changes in their diet, and physicians come into demand more and more. If this most excellent profession would only turn their attention to the prevention of disease rather than the cure, the world would soon be the healthier. The person is not yet born who can calculate the importance of substituting a healthy diet, suitable to the stomach

and tissue, so that people could undergo fatigue as the miners in Chili do, and work like horses, because they live on a simple diet, with one meal a day of grain which has the starch changed in it by their own simple process of preparation, as described by Darwin.

CHAPTER V.

DIETETIC FACTS.

THE broad road leading to the destruction of health is thronged by multitudes who prefer to eat, drink, and enjoy themselves on the varied and fanciful diet of the age, rather than deny themselves for the sake of health, strength, and vigour in future years. "There is a way that seemeth right unto a man, but the end thereof are the ways of death."

I am pointing out the narrow way that leads to the enjoyment of the greatest health in this world, and if the body is preserved and kept under, as provided in the old directions of the oldest books, then life eternal is secure also. Do you require a guide from that broad pathway leading through the wilderness of weakness to the narrow way of health which explorers have found to their great satisfaction? Are you among that multitude, that no man can number, who have pale countenances, sunken cheeks, trembling lips, glassy eyes, emaciated bodies, veins on fire with fever, limbs twisted with pain, lungs gasping for air, hearts beating unnaturally or with indigestion, dyspepsia, diabetes, or gout? Then listen to me, for I have had nearly all the above, and three times so near death's door that my friends fancied they could hear the hinges creak. I got well by a

change of diet. I might have prevented my illness by proper diet if I had been taught. There was no one who cared for my body, or rather they were as ignorant as myself on the subject of proper diet.

The words of Dr. James Leslie, which are here quoted, should be committed to memory:—"Deterioration in the physical stamina of the people is due primarily to defects in the food they eat, and more of it is chargeable to poor bread than to all other causes. The manufacture of flour by the new process gives us little but the starch and the lime from the wheat, and excludes the bone-making phosphates entirely. This is the reason why so many young people have defective teeth, and these will show at ages earlier and earlier, until there is a radical revolution in flour making. We must recover all those lost phosphates."

The above is so true that the knowledge of it is being felt, and the serious effects are spreading like a prairie fire, carrying destruction before it to an alarming extent. So important has the subject become that the patent offices in all countries where indigestion and dyspepsia are prevalent are being filled with new devices to manufacture flour in a different way. Some of them add mineral salts, as near the proportion found in the natural wheat berry as possible; some add a percentage of the coarse meal, germ, or middlings to the flour; some provide for the introduction of chemicals. The addition of more germ than the natural quantity is a fearful mistake. Some add one thing, some another, to make a dark loaf or a brown loaf, a coarse loaf or a white loaf.

But they can never replace the same substances in the same proportions as Nature did in the wheat. They are all a failure, and will produce mischief; the whole wheat, except the woody fibre as already explained, is the only thing to make proper flour from.

The same physician further says : “The combination of elements found in our wheat seems to be a necessary condition to health and successful bone-making. Not only the teeth of the people are affected, but their stomachs are diseased by this emasculated flour. Never before in human history have the people suffered so long without seeking out the true cause and applying a remedy. Every competent physician understands the cause if he is skilled in chemistry, and would only investigate.

“At a dental convention a few years ago the question was broadly discussed, and the fact evolved that ‘teething’ is later with the average infant than formerly, and that the teeth do not endure more than two-thirds the number of years they did under the old system of eating. The introduction of phosphates into the food of women during gestation has since been tried, but does not work satisfactorily.”

Then change the diet. Why not? Do you wish to tone up the stomach and impart new vigour to the whole system? To bring back the roses to the cheeks and the general bloom and buoyancy of health? Then begin at once a new system of living. Remember it takes time to produce a radical change from the present weak state to robust health, as it took time to produce the evil

consequences now existing. But you may begin to feel better in twenty-four hours; and if you persevere there will be a gradual improvement, and the generation following will reap a still more permanent blessing.

A lady, who is now the wife of a clergyman living in Canada, some year or so before her marriage suffered from indigestion. In her childhood and youth and during her school days she enjoyed uninterrupted health with an exuberance of vivacity which made her company always pleasant. Her cheeks bore the bloom and her lips the rosy hue of health, and she was seldom tired. After quitting school, where twice as much work was crowded into the time allotted for her studies than should have been allowed, she began preparations for the bridal outfit. Day after day and week after week she sat and sewed, or planned and talked, with an occasional hour at the piano and a few minutes now and then receiving and entertaining at an afternoon tea. There was a complete change in her occupation to what she had been accustomed to.

The sports, such as croquet, riding, tennis, skating, walking, etc., were all given up. Her grand-parents, with whom she was living, did not realize the effects of such a change, and became much alarmed at the symptoms of illness which kept on increasing from day to day. The diet supplied was the daintiest that could be prepared. The physician prescribed iron tonics and the whole round of remedies, but she grew weaker every day. The beautiful healthy girl became languid, pale, and gloomy.

Then, as a *dernier resort*, the physician advised a trip of some three hundred miles away, and she started with a full supply of medicines and special directions to eat eggs, beef, and mutton, and to drink plenty of milk. The change of air, as is often the case, produced a gleam of hope and a brighter prospect for a few days. In a few weeks, however, she became worse, with increasing distress in her stomach ; when a friend of hers and mine advised her to visit me. She did so. I questioned her about her diet. She had for breakfast porridge and milk, poached eggs, and beef steak or lamb chops ; drank no tea, but drank milk with some buttered toast. For dinner, soup, roast beef usually, or lamb, puddings, cheese, milk, with nuts, raisins etc. For tea, cold meat and buttered toast, milk, preserves, and biscuits. When I explained to her that so much animal food and starchy food combined gave her stomach two or three times the quantity of the necessary elements to health, even for a healthy man, she saw at a glance that the physician did not understand his business. Meat, milk, eggs, butter, fat, soup, and cheese are all heavy foods to be taken into the stomach ; and no wonder they produce indigestion, constipation, diarrhoea, and dyspepsia.

She followed my instructions, changed her diet to my *régime*, and got well, but had but little confidence afterwards in that physician. She is to-day the happy mother of children blooming with health, and she takes care how to diet them.

It is most extraordinary that so many people have the idea they will die from starvation, unless

they eat just so much. It is not what we eat that nourishes us, but what we digest, and not even what we digest easily, but what assimilates. There are very few in the world who starve to death, but there are tens of thousands who die from over-eating. In London, in the year 1895, there were seventy-one deaths recorded from starvation out of the five or six millions of people in that city.

Dr. W. A. Guy, a generation ago, compared the rations in different prisons, and found that health varied with the cost of food ; the cheapest diet was the most nutritious and wholesome. Half-a-century ago the boys in Christ's Hospital had just sufficient food to still their hunger and no more ; five days a week they had flesh meat for dinner, on one day peas-pudding and another day plum pudding. No boys ever enjoyed better health.

Bishop Vendeville, a man of great Christian zeal, was once taken prisoner, and forced to live in a Dutch gaol on a spare diet. When he was afterwards released he declared that he had learned by experience what he otherwise never would have believed, that nature is content, nay, thrives and is hearty on so little food. He was a man enured to a soft and delicate life, and thought it impossible to live, be hearty and well on prison fare. He always looked upon the prison as an excellent school, and of great benefit to him in after life. As to a change of diet, already frequently referred to, Dr. G. Cheyne said : " After thirty years practice I have advised this method (changing diet) in proper cases, and have had but two cases in whose total recovery I have been mistaken."

It is recorded of Voltaire that when nearly sixty years of age he had to abandon his literary work on account of distress in his stomach from indigestion. In his gloomy weakness he went to visit his aged mother, who told him that when she was about his age she was greatly troubled in the same way, and was entirely cured by leaving off every kind of food but potato-farina and buttermilk. He adopted the same diet and soon got well.

Now let me explain that potatoes do not contain but about one-third as much starch as the cereal foods do, and that in proper potato-farina a great deal of the starch is changed to another and more wholesome substance, while buttermilk alone in some cases will cure indigestion if it has a proper chance. The following is a quotation from a letter I have just received from a young clergyman in Canada. He is one of many who are deeply grateful for the guidance in diet which led to a complete restoration of his health :—“Last Sunday I had, as usual, three services and a Sunday school, besides a fifteen-miles drive through a snow and rain storm. I was cold and wet, but not fatigued. The next morning I was up at five o'clock as fresh as a lark. I still sleep with my window open each night, not to excess, of course—no excess in anything is admissible,—but just a little to keep the air pure, cool, and fresh in my room. While I observe the diet, bathing, massage, and drinking hot water according to your directions I am in splendid condition.”

A few years ago this was a young man studying hard for the ministry, but so weak and delicate that

he thought, and his friends considered, he was not long for this world. He was obliged to leave college and abandon study when I took him in hand.

If I have to make an apology for the appearance of this book before the public, the above with many more such cases have goaded me on to write and publish the good news, that others may believe and also be healed by the same means.

The system of dietetics does wonders. The food recommended is worth a guinea a pound compared to any puffed-up patent remedy in existence. Why do physicians keep so well? Because they do not keep dosing themselves with drugs.

In April, 1883, I received a letter, of which the following is an extract. It was from the Rev. W. M. Peacock, in Canada:—"Four years ago I had to give up my pastorate in the city of Kingston, and have been an invalid ever since; lately my digestion has become so impaired that I could get no article of diet that would agree with me. I was absolutely slowly starving in the midst of plenty, till a friend directed my attention to your diet system, which I adopted, and now write gratefully to let you know *it has been a great boon to me.*"

Why should there not be improvements in health, strength, and vigour, as in other things? During the century now drawing to a close many civilizing and developing influences have come to the aid of man. In my introduction some of these are referred to. Glance at them once again. Look at the revolution wrought by steam on land and

water ; then look at those thinner lines which not only cover the land but traverse the bed of the ocean and carry with lightning speed messages from one end of the earth to the other. It was thought for years that the Great Western, a 1,378 tons vessel, did wonders in crossing the Atlantic in fifteen days ; but now a steamer of 12,000 tons does the distance in one-third of the time. These are a sample of the efforts resulting from an awakened conscience among the nations of the earth in connection with education and improvements.

But while the work of the world is being ever more and more specialised, the education of our times in respect to health and strength lags fearfully behind. This is an age of education ; the great political fights over education, by which one party falls and another succeeds to government, proves its power. There are schools of all kinds, and universities, museums, free libraries, art galleries, and no end of daily, weekly, and monthly publications. Everybody admits that children and adults are greatly affected by their environment.

Just as sanitary dwellings, good drainage and the like are necessary, yet when it comes to proper diet, pure air, and pure water, being essential to health, the remarkable apathy to become deeply interested in these is amply proved by the small patronage afforded health journals, while comic society or the popular novels of the day are sold by the hundred thousand.

This book, which will cost many tens of pounds to publish, may not yield enough to pay the expense, but what of that, compared to the satisfaction

of sowing good seed which some one will reap the fruits of. The work will not be lost. I am satisfied that in time the system here advocated will produce a bounteous harvest. All those who have been restored to health by its means are already generating and influencing the good cause. Almost daily I hear of the harvest of strength and stamina one and another is reaping from this system. They keep their eyes open and their powder dry in order to defend this great Gibraltar of protection against weakness and disease. Some scoff at the idea of simple diet and *régime* preventing the dangers to health and life that surround us every day ; but what people see and feel they relate with confidence.

One man, nearly sixty years of age, was so low with diabetes that he thought his hour had come, and his friends told the sad news that spread over two continents. He adopted a beef and prepared cereal diet with hot water, as fully laid down in this work. In two days his urine was as clear as a baby's, and in one month he was able to endure more mental work, and undergo greater physical exploits than he had done for years.

If you wish to really enjoy your food as you did in the days of your youth after some exhilarating sports, then adopt this diet. If you want to really enjoy sound and refreshing sleep, throw away the drugs and adopt this diet. If you smoke, and want to enjoy a really good old-fashioned puff at the pipe, secure the same by attention to this regimen ; but do not smoke, chew, and snuff—one of them is enough, and a smoke is the least objectionable, and should be indulged in moderation.

It is a good plan for those who smoke to use a mixture of some good healthy substance combined with tobacco. It is said that the manufacturers of one of the most popular smoking mixtures in England use up nearly as many loads of good Timothy hay in their factory as they do of the real tobacco. Hay is a good thing for horses, and why not for man? If he cannot eat it, and likes to smoke it, very well—it is better than all tobacco. Hay is actually matured grass, and grass is now coming to the front as a remedial agent for the cure of most complaints.

In London there is nearly as much rage over it as the motor-car. An infusion of it is said to ward off colds and contagious ailments. I have not tried it, but the diet on sensible human food and hot water has proved successful. Grass may be good as a complete change, and I do most unhesitatingly recommend a complete change in diet in many instances.

It proved a great moral, physical, and mental blessing to Nebuchadnezzar, who lived well on it for a long time. It is a great bone food, for his nails were like birds' claws. He was so much improved by the change, that he became more excellent in majesty, and otherwise so much improved that he outlived his son Belshazzar, "whose varied and fanciful" diet led to his early death.

And do not ten thousands die annually from the same cause, to one who dies of starvation? Belshazzar might better have done as his father did, eat grass with the ox, than turn night into day with revelry and loose carousal, which brought the hand-

writing on the wall, and brought him to an early and dishonoured grave.

Ah! how many are cut off in the prime of life because they will not listen to the things that make for their peace, enjoyment, and health! Every one is keen for enjoyment, and yet they take the broad way that leads to destruction. Turn, turn at once, and make a radical change in your diet; do it with earnestness, perseverance, and an iron will to follow out the directions already given, and those which are to follow.

CHAPTER VI.

DIETETICS AND DIABETES.

THE immoderate or morbid flow of urine with sugar deposits is one of the prevailing diseases of the age, and is called Diabetes. For some years it was considered incurable, but dietetics have proved the contrary. There is no need for any one to die of this disease, yet thousands do. The immoderate flow of urine is not always a clear proof of the existence of this disease. A morbid and highly coloured urine is frequently as bad or worse than the other. If you have a sandy deposit in the urine, take care ; it is a warning.

The starchy foods are making havoc with the precious tissues. Unless the diet is changed there will certainly be other warnings in a few months or in a few years. If there is wind on the stomach it proves that there is fermentation. In both cases the wind on the stomach and sandy deposit are warnings.

In financial circles in many places the bank sends out notices to persons who have notes maturing to pay up on a certain date when they are due. So the faithful organs of the human system send out the sandy deposit, and sometimes the wind, or other notices that there has to be attention given to your way of eating and drinking, for the liver and

kidneys cannot handle successfully a food that does not suit their capacity, such as white bread and no end of other things in combination.

The liver does its part, but when overloaded throws more work upon the kidneys, which in turn do their part, until both are clogged in trying to dispose of the food they were never made to handle except in small and suitable quantities. This excessive labour on the part of these faithful and devoted servants results in some derangement, one of which is diabetes.

Many people have this disease and do not know it. Recently a man was examined by a physician for insurance on his life, and rejected by the company because he had very evident symptoms of diabetes. He at once commenced a special diet and is doing well.

When the warning is first given there should be attention to it at once, for there is no leniency. The debt must be paid. If you proceed in the usual way, and ignore the warning, a summons is issued, and you are called to the bar of justice. Perhaps it is diabetes, rheumatism, gout, erysipelas, fever, or paralysis; in any case you must pay the penalty or go to the prison of death.

A certain piece of mechanism is carefully made to produce a certain kind of manufactured goods. It works to perfection, and proves the skill of its maker; but an ignorant or inattentive operator takes charge of it, and by over-feeding or not oiling, by not preparing the materials properly by which it is loaded, or allowing a bolt to get loose, a belt to come off, or some one part or another to become

deranged, the machine soon produces an inferior product not fit for the market.

The human system is a machine most skilfully and delicately constructed, yet so complete in all its parts that man has been declared to be only a little lower than angels.

It is amazing how ignorant and inattentive most people are in regard to their bodies. The skilful mechanic prides himself on the perfection of his work, and all the *minutiae* of his machines are known to him, but he is ailing and miserable from the ill effects of not knowing the way to run his own body, so that it will do the work nature intended it to do.

Ladies will dress to perfection, spend hours at their toilet, and powder their faces to appear as beautiful as possible, while they give no attention to the study of anatomy, physiology, or hygiene, and they, of all created human beings, should know the things that make for the peace, health, and vigour of themselves and their children. If the ladies—God bless them, for they are indeed only a little lower than angels,—would but turn their attention to the study of this subject as they do towards petitions to Government and many humane and excellent measures for the amelioration of poverty, crime, and wretchedness, they would strike at the root of an evil greater than any other that exists under the sun.

How is it so much attention is paid to so many minor matters, and this hydra-headed giant of evil is allowed to stalk through the land, destroying its tens of thousands, while other evils over which so much ado is made only destroy by the thousand?

Notwithstanding the rage about technical schools—where people can learn everything necessary to their calling—and the amount of money spent on colleges, universities, and schools of almost every description, there is almost a total neglect to teach the children the first elements of the proper use of the organs of their own bodies. While one is done the other should not be left undone.

In the present school system in England hard-working men are subjected to a harsh and unjust treatment at times, owing to the shackles of what was considered, when adopted, a very excellent system of board control, so as to compel parents to educate their children in the "three R's." Cases have become public where the father has been away at work, the mother away at the dram-shop, and the children playing on the streets instead of at school as the law provided. The father, without any fault of his, has to pay a fine or go to prison for neglecting to send his children to school, while the real fault lies with the drunken mother. It is said such cases of hardship could be counted by hundreds.

If there had been schools for teaching dietetics and the simple rudiments of hygiene to which half the compulsory efforts had been used to get attendance, and such mothers had been instructed in the right way, there would be less of such hardships as reported above.

Why do the clergy and the Church not work more in this field? Alas, they do what they can in what they consider their proper sphere. Then

some one must do it. I do what I can, but there needs an army of workers in this field. I have never charged a penny up to the present time for what I have done, while persons have paid large sums of money and received far less benefit than from the gratuitous directions received from me. In one case reported to me, 100 guineas were paid for advice and medical directions by a person suffering with diabetes, and not a hundredth part of the permanent benefit as was received from a few minutes' interview with me. A hint sometimes is worth more than a guinea.

In one case a merchant in Glasgow, who had been using gluten flour from New York, wrote to me and then came to see me, and adopted my system, and though eighty years of age at the time, lived five years more on the flour I prescribed, with meat and hot water. I heard from him several times after the interview with great satisfaction at the relief he obtained.

Another case was that of a prominent Canadian senator, who was troubled with this disease, more or less, for over thirty years, and got gluten flour from Paris until he heard of my remedy. For many years he and his lady followed my directions, and, though in a good old age, enjoyed fairly good health and took supplies of the diet I recommended in all their travels.

It is not strange, though true, that the rise and spread of diabetes was contemporaneous with the introduction of the white flour and the "varied and fanciful diet" so often referred to. Why repeat? Why? Because there is need of line upon line,

precept upon precept, in such a matter of vital importance.

The human system makes no mistakes. The organs of the body do their work faithfully. It is the human will that gives the trouble. It holds the sovereign sway over the palate, which it would sooner please than any other part of the body. Like a favourite child in a mis-regulated family, every consideration is bestowed upon that child, regardless of the others. The will controls the palate, and custom has made the palate as degenerate as the heart of a callous criminal. The unreasonable demands of fashion have produced appetites which are difficult for the will to control, even when disposed to do so.

Among the demands of fashion is the white fine bread, which the eye is pleased with, as Eve was pleased with the sight of the forbidden fruit. As Milton says: "She stretched forth her hand: she plucked, she ate; earth felt the wound, and nature throughout all her works gave signs of woe that all was lost."

The human will says to the palate: "This bread is beautiful; it is so white and pleasing to look at, I must eat it." The palate is subservient to the will, and the result, which is slow at the beginning, is terrible in the end. The disordered condition of the stomach, the liver, the kidneys, and starvation of the tissues cause undue fermentation in the stomach and bowels.

The blood is obstructed in its passage and rendered impure; the heart pumps and throbs in its effort to handle the overload, while the liver and

kidneys, in their effort to assist one another, as well as the heart, find the accumulation of carbonic acid gas so continuous, and other acids forming from additional food and drink regularly indulged in before the last meal had been disposed of by these faithful agents, that some part of the great machine fails.

Some people have the habit of using too much salt in their food. It is a habit that grows on one. For many years no perceptible injury is experienced, but finally the kidneys are overstrained by the tax on them to eliminate the saline properties, and nephritis in one form or another sets in ; it may be gravel. Cease using salt, except the portion nature put in the food. It is well known that salt meat is very difficult to digest.

It is no wonder, for a machine made of steel and oak would fail to do its work if used in so ignorant a manner. The only hope is in a complete change of diet.

Take lean meat and starch-changed cereals, and drink only hot water, so as to wash away and clean out all the foul fermenting acids and nauseous, fetid, saccharine, starchy slime that has been gathering so long in the stomach, intestines, and arteries. Wash and clean away from the liver and kidneys all the obstructions that your former diet caused to give trouble. Water does wonders ; it cured Naaman of leprosy.

The blood is composed of seven-eighths water. How is the blood made ? The stomach, when in a healthy condition, converts food into a pulp called *chyme*, and passing it into the intestines, *bile*

converts it into a milky substance called *chyle*, in which state the lacteal absorbents convey it to the blood near the heart, through which it passes to the lungs and becomes real blood ; that is the simple process of making pure blood. Men, by the light of science and invention may make almost everything but one drop of pure blood, except through the above process.

Then how very particular we should be about our food. Digestion of food into *chyme* means,—its trituration, fermentation, putrefaction, and solution by the gastric juices of the stomach. If the gastric juice is insufficient to bring into solution and convert the food into *chyme*, there is distress in the stomach, headache, constipation, diarrhoea, diabetes, or some other trouble which gives the warning notice to beware.

This is an age of gum-chewing. Large manufacturing establishments are created for the purpose of making chewing-gum, which is advertised extensively as a remedy for dyspepsia. Later on, pepsin was added to make it more effectual in relieving the weight and fullness and flatulence so often felt after a hearty meal on the full-fare list of every-day or Sunday dinners.

Finally, people begin to learn that chewing-gum, taking tonics, using effervescent drinks, taking pills, salts, and every patent remedy in the whole catalogue only affords temporary relief, and they are soon in the old path of distress and gloom ; and they will get worse, unless they make a very radical change and watch what they put in their mouth and take into their stomach. It requires to be of that

character that the gastric juice can dissolve and convert into *chyme*.

The saliva of the mouth and heat of the stomach, combined with the action of the gastric juice, first converts the starch of food into dextrine; but if there is more starch than the saliva, the heat, and gastric juice can manage, then the blame is not on the stomach, but on the food; and the food is not to blame either, but the will of man, whose unreasonable tyranny and ignorance forced the food into the stomach.

One great difficulty I have found in curing diabetes, and other disorders as well, arises from people not carrying out implicitly the directions regarding their diet. They begin well, and appear determined to follow every detail, but from the force of habit the old way comes upon them like an insidious foe, and they are set back before they know it. One gentleman had found relief to such an extent that no saccharine matter was found in his urine for some weeks; he had become so well that he could stand an east wind—and a Lancashire east wind—which is a trying test for an invalid in the English climate.

He could also run up and down stairs and undergo considerable physical exercise without fatigue. But all of a sudden there was a warning notice sent him—his urine was morbid, highly coloured, with a deposit in it; his lips and mouth were dry; some flatulence and wind eructations with which he had been troubled before, came on again. For a day or two he could not think of the cause, as he had faithfully, as he considered, carried out all the

instructions. He ate the lean meat, mostly minced, drank hot water, with starch-changed cereal food as before.

But the alarm signals were up, and continued sounding in his ears like a dismal fog whistle, warns the mariner of approaching danger. The human system makes no mistake ; it is a perfect machine, which has the power, to a great extent, of repairing itself, with some slight assistance at our hands. Nature will do its part perfectly if it has a chance. It clings to life ; it hates the sound of disorder ; it warns of danger.

At last this gentleman discovered the cause of the new trouble. He had commenced taking a small glass of Scotch whisky and water with his lunch and at dinner ; that was all ; only that and nothing more. He gave it up and took no liquids whatever with his food, and the warning signals were taken down. The urine became clear, and the parched lips did not require a lick from the tongue every two minutes to moisten them. After some months longer on this diet he found no derangement from an occasional indulgence in whisky and water.

Dear reader, if you are disposed to adopt the system of diet here recommended, and should happen to forget any of the directions I have given, allow me to impress upon your mind with an indelible stamp this one precept—*if you find your mouth so dry that you cannot eat without washing down the food with some liquid, though it be only water, you had better not eat at all.* Wait until the natural saliva is enough to moisten your mouth so that even the driest food, like hard

gluten biscuits, will be enjoyed. No difficulty will be experienced afterwards, because the gastric juices of the stomach will be ample under such circumstances to do justice to all that comes along in moderation.

Another point which should be kept in mind, is the desire to be fat and increasing in weight. This is an abominable desire, begotten of ignorance and pride. Muscle is better than fat ; tissue is a thousand times better than corpulence ; strength is more glorious and beautiful than weight. There are scores of people paying out guineas by the hundred, to get their weight reduced and their corpulence brought within the bounds of respectable dimensions. An old and effectual remedy for doing this is very simple, which is—"eat less, sleep less, and work harder."

But an easier means, yet more effectual, is to adopt the system of dietetics advocated in these pages. The following is given by the best authorities as the normal weight of men compared with their height at the ages indicated :—

Age 20, 5 ft. 6 in., weight 132 lbs.	The weight of man may exceed this by 10 per cent., beyond that his respiration becomes diminished.
„ 30, 5 ft. 6½ in., „ 140 „	
„ 40, 5 ft. 7 in., „ 142 „	
„ 50, 5 ft. 6½ in., „ 140 „	
„ 60, 5 ft. 6 in., „ 136 „	
„ 70, 5 ft. 5 in., „ 131 „	

The weight and height of females average 10 per cent less, and in both cases different heights above and below those given should be in proportion to those given above.

I am well aware that the average weights are higher in later years, since the "varied and fanciful

“diet” has come into vogue, but this is only in consequence of the diet, and by no means indicates more strength or better health, but the contrary. The old pun, “Why does an alderman wear a tartan vest?” and the answer, “To keep a check on his stomach,” is very significant; but it is misleading; he should keep a check on his will. The will should control the stomach, but while men exercise their wills in the control of their business and everything else, they seem to be incapable of doing so in regard to their diet.

The consequence is that one of the most universal maladies of the present day among business men and others is, they have in some one form or other, to some extent more or less, diabetes, Bright’s disease, rheumatism, dyspepsia, gout, or some kindred complaint. They catch cold easily, have chills or fever when they should be able and might be able to stand fatigue, stand a little draught, stand an east wind, stand the worry of every-day hustle and bustle of a keen competition, if they only attended to the simple matter of proper dietetics, hygiene, and massage. If people would only live so as to keep on hand some reserve stock of strength in cases of emergency, there would not be so many painfully sudden deaths.

CHAPTER VII.

LET US REASON TOGETHER.

DURING the dark and middle ages men gave little attention to things from a physical basis, but attributed all phenomena to a supernatural agency, either heavenly or diabolical, and the masses of the people reaped the fruit of their ignorance, so that plagues and pestilence raged throughout the length and breadth of Europe.

At such times there was an important class of people scattered among the nations who often proved hostile to them, yet who escaped from the epidemic and endemic diseases as though they possessed a charmed life amid the afflictions of the others.

These were the Jews, who, though they had forgotten many of the laws of Moses, did not forget the guides to health which he gave, and of which there has never been an improvement.

Moses may be considered the father of dietetics and of public hygiene, for what the ten commandments are to the moral and spiritual welfare of the community, his laws pertaining to the physical well-being of the public are equally important. His strict regulations as to the kind and mode of preparing food, the slaughtering of animals, and

precepts as to the animals permitted for food and their mode of death, as well as his laws forbidding the marriage of kindred and the situation of cemeteries, time of burial, and the isolation of the sick, are all foundation stones in the system of preventative medicine as understood to-day by the most enlightened nations of the world.

In the *menu* of Adam's dining table there was profuse variety. It reads something like this: "Every herb bearing seed, and every tree bearing fruit, to you it is given for meat," and then further on it is amended by including "every tree of the garden of Eden thou mayest eat freely: but," and here is the restriction, "the tree of the knowledge of good and evil thou shalt not eat of it, for on the day thou eatest of it, thou shalt surely die." The herbs and fruit at that period were sufficient as perfect diet, and they might eat of them freely.

After the fall of man through eating the wrong food there was no more free eating; they had to earn their bread by the sweat of their brow after that, and so it has been ever since, is now, and will be to the end.

In the *menu* of Noah's dining table there was a great change introduced. The fruits and cereals of the earth are supposed to be less sustaining; and the earth's surface underwent a great change, as the waters of the deluge produced a chemical transformation, which not only affected the products of the soil, but man's nature as well.

It is considered by eminent authorities that animal flesh was not used for human food before the flood, but afterwards it was not only permitted,

but commanded—implied in a manner that seemed to carry the weight of command. The new *menu* introduced was still broader than before, and included “every moving thing that liveth shall be meat for you; even as the green herb have I given you all things, but;” and here comes in the restriction again.

In the *menu* of Moses’ dining table there is another change made: Unleavened bread and leavened bread; bread made with oil, besides various kinds of flesh, with most stringent restrictions regarding other kinds; how they were to be cooked, prepared and served, with minute instructions as to the vessels, the ovens, pots, pans, wells of water, and clothes, as well as the purification of men, women, and children.

The use of blood as food, or in the food, was an offence punished severely, and in cases where the blood was spilt, it had to be immediately covered over with dust. There were directions also given for abstinence or fasting, when no kind of bread or parched corn, green ears, wine, or any other food should be taken; and this was a most salutary statute.

Fasting or abstinence is generally considered only as a religious observance, while it is one of the very best means of promoting health, strength, and vigour. John Wesley said it was as impossible for a person to get to heaven without fasting as without prayer. However this may be, it is impossible for a person to enjoy uninterrupted health without some restraint on his appetite, and fasting is of far more benefit than all the sugar-coated pills and

patent medicines in the world, which so many now use since the fast is ignored.

The vegetarians take strong ground in favour of living exclusively on the products of the vegetable kingdom, with or without the addition of eggs and milk, and the products of milk, such as butter and cheese. They condemn the use of fish, flesh, and fowl ; they advance very strong reasons, which are backed up by many very strong authorities.

One of their reasons, which is not very strong, says, "flesh contains from half to three-quarters of its weight of water, and is ten to twenty times more expensive than cereals, which contain only about 14 per cent. of water."

In reference to the above, seven-and-a-half pounds of milk cost as much as one pound of beef. In the milk there is 87 per cent. of water, while in the beef there is 50 per cent. of water. Of potatoes, sixteen pounds cost as much as one pound of beef, and contain 75 per cent. of water, while beef only contains 50 per cent. of water. Eggs, milk, potatoes, butter, and cheese are therefore more expensive articles of diet than beef.

The vegetarians refer to the Spartans and to the ancient Greeks and Romans as examples of possessing extraordinary muscular strength on a diet of vegetables, legumens, and cereals. They also refer to a host of ancient and present-day worthies of great ability and distinction as examples of a vegetarian diet. They refer again to the porridge-eating Scotchman, and the potato-and-bread-eating Irishman as superior in height, weight, and strength to Englishmen who eat so much beef.

As to all this, and much more, for the vegetarians are enthusiastic in the advocacy of their views, and are as a general rule most sincere, they overlook the fact that in the *menu* of the dining tables of both Noah and Moses flesh meat was not only allowed, but necessary ; and the world has proved by its universal custom that a mixed diet is necessary for human beings. Fish, flesh, and fowl, cereals, vegetables, legumens, nuts, fruits, eggs, milk, butter and cheese are all excellent articles of diet, but the trouble is, not one in twenty knows how to use them properly, and in the quantities necessary to health. Most people who can afford it want to have them all at once ; they want the whole variety every day, and others at every meal. They are not gluttons either, but they are led by a blind or injudicious habit that tyrannizes over them like the appetite of a *gourmand*.

A large quantity of animal food is by no means necessary for the sustenance of the human frame ; in some cases it is injurious. One or two kinds of food at a time, animal and vegetable, should suffice, and a mixed diet is the best ; but in any case it should be simple, and not varied too much. Other creatures are generally restricted to one sort of provender ; they are carnivorous or granivorous, piscivorous or something ivorous ; but man is the universal eater. This fact places man in a position that in whatever circumstances he is found his appetite can be appeased.

All this proves that man is omnivorous, and that he can be supported on a great variety of food.

He alone of all animals is provided with a case of instruments adapted to masticate all substances of food,—teeth to cut and pierce, champ and grind ; and while in good health he possesses saliva and a gastric solvent capable of contending with every kind of food necessary for him. His teeth are such that they are suitable for tearing and grinding the various kinds of food fitted for his system. The eight front ones are called cutting teeth, then come two dog teeth ; the next two are pointed, while the three next on each side are the molars or grinders. The four front ones in each jaw come first in eight or ten months, or did formerly till the new and fancy food was adopted.

Then, as if to prepare for more solid food, in the course of twelve or fourteen months there come along sixteen grinders, and finally in twenty to twenty-four years appear four more grinders. Then again, the muscles of the human jaw exert a force of 534 pounds, which clearly show that man is capable and naturally adapted to chew and masticate flesh food and hard substances as well as vegetables.

Another proof that man was intended to use flesh for food is in the fact that the enamel of his teeth is confined to the external surface like that of carnivorous animals.

The following eminent authorities show that vegetable food alone is not sufficient. Dr. Carpenter says : “ A pure vegetable diet, if it contains a due proportion of oleaginous matter, is capable of maintaining the physical powers.” That little “if” is like a word to the wise, which is sufficient. Liebig says:

“ Vegetable fibrine and animal fibrine, vegetable albumen and animal albumen hardly differ even in form.”

Then where is the danger from animal food ? But Moleschott says : “ Legumens are superior to meat in abundance of solid constituents, except albuminous substances, which in legumens are double what they are in meat.”

While, as Liebig says, the quality is the same, the latter says the quantity is double, and evidently a great deal too much for the exclusive use of food for general purposes.

Dr. Lankester says : “ Animal food is composed of the same materials as vegetable food.”

If a person wishes nutritious food at a very low cost he can eat legumens, such as peas, beans, carrots, cabbage, and beets, but he takes into his system twice as much albuminous matter as is required. If he combines with them only bread made in the popular style, with potatoes and other like foods, he turns the stomach into a very cauldron of fermentation, in which yeast boils, bubbles, and works the expansion of the whole system ; the intestines stretch out to their full extent, while the arteries, membranes, tissues, and blood are supplied with such an abundance of albumen, starch, sugar, and other unsuitable elements, more than they were ever intended to handle, that they become clogged, deranged, and soon give warning signals of approaching danger.

In persons with outdoor employment or of great physical labour these results do not show so much, but with persons of a sedentary occupation or of

little exercise they are certain to create mischief to a greater or less extent.

With flesh meat there is not so much danger, especially when it is combined with bread and cereals in which the starch is changed, as so often noticed.

Bright's disease is known by deposits of albumen in the urine. The liver and kidneys are overtaxed by the use of too great a quantity of vegetable, saccharine, and starchy foods, with all kinds of drinks, whether fruit juice, ginger ale, barm beer, effervescent or still drinks, soda water, or fermented and spirituous liquors. In either diabetes or Bright's disease a vegetable diet exclusively is certain death, but even very bad cases can be cured by the diet here recommended and the liberal use of hot water as the only drink.

Let us reason together ; know what you are about ; let your practice be based on rules which are reasonable. Life is the great schoolmaster, and experience a mighty volume of instruction. If you make one stern step of self-sacrifice in regard to the use of proper diet and in proper quantities, you have acquired the first vantage ground. Never heed what others say. In three days, or a week, if you persevere, no one will laugh at your improvement, but rather congratulate you, while you will realize a new blood coursing in your veins, and more than a gleam of hope and joy that cannot be estimated by guineas. .

There are many inconsistencies in this world, but the most inconsistent thing is for a person who is ill not to adopt a system of cure which appears

reasonable, because people ignore it, laugh at it, and ridicule it.

A youth steals an apple in sport or thoughtlessly and is sent to prison, while a man steeped in vice may devote a fortune in the demoralization of his kind; and often receives the adulation of the world. I am in these pages boldly and strongly advocating a system of dietetics which I have tested for several years. I have given the matter over twenty years' study, and should know the subject in all its bearings, and be able to explain, enforce, and direct persons in the way of health, more than others who have not made the subject of dietetics a speciality.

I am strongly convinced that sooner or later this system will find its way into the judgment and practice of tens of thousands of people, whose sufferings will be relieved and their lives become a pleasure to them, and they will become a blessing to others.

I have been interrupted in this chapter by a visit from a young man who two weeks ago could not sleep at night from coughing (whose brother died of consumption, so called). He was weak, and could eat very little, and thought he should be obliged to give up his situation. He came to thank me for what I had done for him. His cough was all gone and his appetite restored ; in fact, he declared his appetite was voracious. He had no distress in his stomach ; his kidneys were cleaned out so that he had no trouble in that direction, while his hands which were so clammy with perspiration when writing that he had frequently to lay aside his pen to wipe them with a towel, and hot flushes,

followed by cold chills, were all gone, and he was well.

In this case I had recommended, in addition to the minced meat, hot water and starch-changed cereals, a regular hand-massage for his whole body by himself, as his strength would permit, every night and morning, and especially the soles of his feet and nape of the neck where the nerves centre. This is often of very great benefit.

Some four years ago a young man who was greatly troubled with a sore throat, which was increasing so rapidly that he lost flesh and strength, until I recommended him to rub his whole body, especially his throat and the soles of his feet, and nape of the neck, for ten minutes every night and morning, but to begin gradually as his strength would permit. In three weeks he was perfectly cured without any change in his diet. He had gained flesh and strength when I saw him some three months after, and had forgotten about his sore throat, but he did not forget to tell me of the benefit he had received from my advice.

Little matters are not to be despised. In cases of typhoid fever the lining membrane of the small intestines becomes intensely inflamed and gorged. Eventually it begins sloughing away in spots, leaving well defined ulcers. A solid food, if taken into the stomach at such a time, would be very dangerous, resulting, as it has done, in perforation of the intestines, which is sure, in almost every instance, to produce death. Hence the use of milk, or, it is now claimed, bananas are not dangerous, but afford the very best nourishment for the patient.

The banana is now considered even better than milk, as it contains 95 per cent. of nutrition. This is a little thing, yet how important. The banana is classed by some as a solid food, but it does not, as is claimed, possess sufficient waste to irritate the sore spots.

Another little thing that has puzzled scientists a great deal is the means by which a fly can creep up a pane of glass or walk on the ceiling. I refer to these matters to illustrate the influence of attention to little matters which most people despise. Flesh meat, which is such an excellent food, especially beef, may be rendered very unhealthy by the addition of condiments.

But suppose a person to eat meat saturated with mustard, pepper, salt, and sauces, with the condiments besides, he certainly will have a head-ache, or ought to have, and this head-ache puts a stop to his eating just long enough to allow Nature to throw off the poisons through the skin, kidneys, and bowels, when the head-ache ceases. Not only head-ache, but all the other troubles arise from improper feeding. Some eat too much, some too little, while almost everybody eats the wrong kind of food.

There must be consideration, reason, judgment, and study ; there must also be exercise. But what is exercise ? This has already been explained. Many people take too much and others too little, while others are as injudicious in their exercise as they are in their eating. It is a disgrace to be idle ; it is dangerous to be spasmodic. Some people take all their exercise on one day in the week,

and it has about the same effect as a big Sunday dinner, which leaves them some hours afterwards about as inanimate as the roasts, pastry, and puddings which they consumed so much of.

Perspiration is necessary. A warm bath causes surface circulation and so does muscular exertion. A walking excursion in mountainous districts is very good, but there must be a resolution formed and adhered to—that is, not to walk too much nor bath too much.

It would take a volume to write out all the details; but be rational, be reasonable. Do not neglect working, eating, breathing, and recreation, so as to maintain health and strength. Keep the body internally and externally clean; the latter is important, but the former is vastly more so.

How is it that persons who have been so tender for years that upon the slightest draught or change in temperature or clothing they would "take cold;" and then from a change of diet, by adopting minced meat, prepared cereals in which the starch is changed, and by drinking four pints of hot water a day between meals, and nothing with their meals, they have in a few weeks become so hardy that none of the former troubles ever disturb them, and they have no more dread of catching cold? Why is it? Because nature is assisted in asserting her rights and privileges over the tiny tissues, arteries, membranes, blood, liver, kidneys, intestines, bowels, and all the wonderful mechanism of the human body, which was so wonderfully made as to endure everything a human creature was intended to endure without breaking down.

“I have married a living corpse,” said a young merchant to me one day, in reply to a question I asked him in reference to the health of his wife, who was away at a sanatorium for her health only a few months after her marriage. At first sound of the words there appeared an unfeeling harshness about them, but when I considered that he had been terribly disappointed, and was at an expense he could ill afford to bear, I did not blame him for the expression of his honest feelings.

I had known the young lady ; her father was wealthy, and one of those proud men who had risen from being a poor boy to affluence, and retired from business at about fifty. He brought up his daughters in comparative idleness, and at the same time was too strict to allow them such recreations, sports, and pastimes that would have served the body well or would have helped to take the place of work, but which they were excluded from, until weakness undermined a naturally good constitution, and temporary strength was obtained by prescriptions of drugs from an incapable country physician.

This man thought he was getting a *bonanza*, but he married a “living corpse.” Such girls should not marry, or wait until health was restored. How many, ah ! how many unhappy marriages are the consequence of just such living ?

Liebig says : “Starch is a good food for animals, as it serves them with heat and strength, and is suitable to their coarser natures.” So it answers very well for hard-working people when mixed with other foods ; but the feeble, the idle, the nervous had better keep as clear of it as possible.

In fact, eat no food that prevents a free flow of good, clear urine or produces constipation. Plenty of out-door exercise, not too violent nor long strained so as to produce fatigue, but that which exhilarates and gives zest to the next meal; and then the next meal will increase your strength and yield a lot of fresh, pure blood to gently flow in life-giving streams to the utmost part of the body.

The late Sir Andrew Clark's favourite prescription was: "Clothe lightly, towel briskly, and live frugally." It is better worth a hundred guineas than many another prescription that costs only five.

CHAPTER VIII.

MOTHERS AND CHILDREN.

DEEP breathing and breathing through the nose are among the very first important things a mother should understand and practise for her own good and the benefit of her children. Practise full, deep breathing of pure, fresh air, and throw back the arms so as to fill the lungs once or twice a day, and you will find in the course of a few weeks or months a rich, healthy stream of purer blood will flow from the heart to every part of the body, making ruby lips, with roses on the cheeks, because this sensible practice aids digestion; gives a clean, sweet breath; promotes sleep; quiets the nerves; expands the lungs; strengthens the heart; and feeds the tissues.

Fresh air and pure water are the most essential elements for the human body, next to food. This is a practice the benefit of which is not realized at once, but its influence and effect on the system will be acknowledged and realized all through life. It often prevents catarrh, bronchitis, lung disease, and heart trouble, because these organs and the arteries are assisted in their work by the pure air inhaled and the gradual expansion produced.

It is useless, though, to recommend it to some mothers. Though it may seem a strange anomaly,

yet it is verily true, that many a woman is more interested in new fashions, in advocating woman's rights, in studying etiquette and the science of entertaining, and in having superior preserves, sweetmeats, and pickles, than in her attention to dietetics and hygiene. It will, alas ! be an age of lamentation and woe, when a mother will neglect the duties of maternity for the pleasures of society.

It is most astonishing how some women wear themselves out over the ceaseless care and worry about their children's health and happiness, while others commit them to the charge of a nurse, and are content to see them once a day for an hour or less, so as to avoid the patient serving and self-denial which maternal duty naturally enjoins.

During this hour's interview the children are pampered with caresses, sweetmeats, and compliments, so as to make that short hour pleasant in the memory of the children, as if such a pleasure would be sealed on the memory of a grown-up boy or girl as much as the careful training and judicious example of a constantly loving restraint, directions and counsel amid the little cares, aches, pains, and troubles of an every-day contact with the world surrounding them in their circumscribed daily routine of child life.

There are foolish as well as wise mothers. Some do too much, others too little ; some have cross, sickly children, to whom they give ceaseless attention, when more attention should have been given to themselves and the style of eating, drinking, and living before their children were born. There is no necessity for cross, sickly children ; they

should be as happy as a sporting lamb, and as healthy as a young fawn. That is what nature intended. Parents should understand this, especially the mother.

How great are her responsibilities to her offspring ! Milton has pictured Eve's greatest agony after the fall to her forebodings of its effects upon her offspring. The wretchedness and misery entailed upon them caused her greatest grief when she arrived at that state which caused her to contemplate its consequences. When will mothers waken up to realize that many of the evils of the fall may be assuaged by the means a merciful Creator has put within their reach, and that they should first understand the subject of dietetics and hygiene.

True it is that children are to obey their parents; but it is only part of the truth. Parents should understand their children and themselves in relation to their duty. In after life, when these children become men and women, they will appreciate more than wealth, honour or education, the wise counsels, the loving restraints, the practical examples and judicious influence of their parents more than anything else, and this training is the very best education in the world. How to live so as to be strong, healthy, and vigorous, in mind and body is an inheritance bequeathed to them, of greater value than silver or gold.

Some years ago a judicious physician visited a school for the purpose of giving some practical lessons on dietetics and hygiene. He questioned a class of boys on the manner of chewing the food they ate. He asked them to write on a slip of paper

the next day the number of bites or times each one nipped a mouthful of food before swallowing it. When he received their papers, at the earliest opportunity he explained that some of them bolted their food without proper mastication, which was very injurious to health. In eating meat or bread they should nip it with the teeth from thirty to forty times, while some of them did not do it half as often.

It is said the cause of Mr. Gladstone's remarkable health and vigour at his advanced age is attributed to the habit he has so long observed of nipping each mouthful of food forty times before swallowing it. Slowly chewing the food indicated, as some considered, slowness in everything they did, but not necessarily; quick eating was injurious, but a quick motion of the jaws in eating could be acquired the same as quick walking or quickness in anything, so that if their time were limited they could, by a little practice in quick chewing, avoid the evil of swallowing the food half masticated.

That whole school, boys and girls alike, were drilled on the importance of proper mastication of the food before it was sent down to the digestive organs. Such instruction is more valuable than any technical education or any other education, yet it is most neglected. Few physicians do as this one did.

In a curriculum of technical education which I glanced over the other day, and in the report of secondary education, it was stated that 1,800 students had availed themselves of the great advantage of the classes; but at the bottom of the list

of subjects was hygiene, which should have been at the top, with the greatest importance attached to it, instead of the least.

How is it that the philanthropists, physicians, clergy, teachers, and parents so entirely overlook this subject? It cannot be that they are ignorant of its benefits. Is it because it is not popular, and demands too much self-sacrifice? If so, it is a disgrace to them to shun the responsibility.

The brightest boy in the family or in the school has a nervous temperament and weak constitution, probably inherited from his parents. He is quick to learn, studies hard, and succeeds in carrying off first prizes in school and early matriculates for college. He enters the university and wins honours, but sinks in health and becomes a physical wreck because he was not taught, neither by his parents nor teachers, the necessity of exercise, proper attention to the principles of hygiene and dietetics, nor how to preserve the body, the precious casket containing the precious soul. He comes to an early grave.

Who is to blame? Who? Primarily his parents, who should have understood that the whole world is useless to a young man if his health is gone; the teachers, professors, and college magnates, in the second place, for not considering the health, strength, and physical capacity of their students as well as their mental abilities.

In a grammar school there was a class of some fifty boys who were about to be inflicted with one of those periodical "grinds" before examination. The principal tested their strength by lifting upon

the dynamometer, and the average number of pounds for three trials was recorded as the muscular “strength record.” After the examination was over, which lasted two-and-a-half hours, they made the same endeavour to lift all they could. With two exceptions, none could raise as much as before the intense mental activity.

This illustrates two facts,—first, educationists know their duty, whether parents do or not ; and in the second place, mental activity, unless followed by recreation, is very wearing on the system. Parents should understand their responsibility, and instead of sending the weakest boy they have to college and the strongest one to the farm, they ought to reverse the order. Mothers, take warning.

But why should there be weak, delicate ones in the brood? Why are they not all strong and robust? Alas ! why ? Perhaps before that delicate, fragile child was born the mother was ignorant of the effects of her course of living ; even after it was born she was still ignorant of the influence her own life was to exert on the health of her child. I may illustrate this by copying the following letter ; it was written by a lady who had had seven children, the youngest sixteen and the eldest thirty-three, and all robust and healthy, although their father was delicate, and several times near death’s door with illness. The letter was addressed to her daughter-in-law, as follows :

“ MY DEAR JANE,

“ I am anxious about you, as you approach nearer the time of becoming a mother, and would advise you strongly to see to your own health, that your offspring

may be born healthy. It is a rare thing in these days to find a baby born quite sound and healthy. This lies undoubtedly at the parents' door, as the outcome of improper ways of eating and living. More especially should the mother realize the importance of how she eats and what she eats for a few months before the child is born.

" You should guard against all cravings for such articles of food as would in any way tend to injure yourself or the child, either in body or mind. The mother's desires and disposition are often seen in her child, so you will find it advantageous to deny yourself for a few months and closely observe a strict diet, which I am going to try and impress on your mind, which if you strictly carry out, I am not afraid but what you will enjoy life so much the more by enjoying health, both yourself and your child.

" While you are *enceinte* you should exercise daily in the open air ; walking, driving, etc., but never enough to fatigue yourself. Overdoing any good thing spoils it. Avoid excitement, sudden shocks, surprises, worrying, anger, and fatigue. If you are now weak change your diet to some light, nourishing articles, until the tissues and arteries of your body become clear and capable of doing their work properly, then your food will assimilate, and nourish you, giving pure blood and greater strength.

" If you live upon good substantial food, say half animal and half prepared cereals and vegetables ; avoid all combinations and quantities which are likely to disturb the digestive organs, and drink hot water, and plenty of it, for a few months before confinement ; it will, I am sure, be a lasting benefit to you both.

" It will also ward off the dangers which you are liable to meet with at such a time. Good pure blood

from a reasonable diet, with good digestion, will cause Nature to assert her right of way when the mother has taken the proper precautions in this direction. The labour and dangers of confinement are reduced to a minimum in this way.

“ After your delivery you should continue to live on the same substantial diet all through the nursing period, which should last from twelve to fifteen months. My own experience is proof of what I am writing, and when you have fed in this way, as a general rule you will have a plentiful supply of good substantial milk for the nourishment of your babe without resorting to any substitute, which so often upsets and disagrees with the stomach.

“ By your own care and good diet you may thus secure to yourself and child the foundation of a pleasant, healthy life, with sound digestive powers and a good disposition. This is the first duty, and one you are responsible for. Alas ! how few understand this; how few know the responsibilities that rest upon a mother.

“ Another matter of importance is, do not forget that an infant often cries from thirst. I would recommend you to give regularly to your babe, if it cries, a dessert-spoonful of pure warm water between meals. Do not burn it, but let the water be warm.

“ Let the meals or time of nursing be no oftener at first than every two hours, then gradually extend the time to every three hours, until you will find that every four hours will be the proper time, and if this regular system is strictly observed it will save both yourself and child a great deal of trouble, besides contributing largely to the health, contentment, and happy disposition of the child, and avoid many diseases.

“ In every case it is as necessary as washing the infant’s body, to carefully wash out the babe’s little

mouth with warm water, every morning at least. Some mothers do it before each meal by dipping the finger covered with a piece of old fine linen in warm water and running it round the child's mouth.

"Young children are often troubled with indigestion, which causes pain, then they will cry, of course. The great trouble is often from over-feeding, the same as in adults, while the mother or those in attendance fly to some soothing remedies, which may give relief for the time being, but are likely to increase indigestion more and more when resorted to frequently.

"Be careful not to feed the child too soon after birth. A few hours abstinence from food will not injure it. First give a little warm water, a teaspoonful only after washing its mouth, then its natural food or the best substitute procurable.

"When it comes to the time of dentition, another birth, as it were, takes place. If the child's stomach and digestive organs are in a healthy condition, and they certainly will be if proper attention has been given to its diet both as to quantity and times of feeding, there will be little difficulty in breeding teeth, if not, the child will suffer, and the parents too, for there will be pain, anxiety, and much worry. Why does the child not cry over the growth of its nails or hair as well as the natural coming forth of the teeth?

"When the first teeth appear they are for biting, cutting, and tearing, hence they are incisors. This indicates the necessity of giving more solid food. A little lean beef may be minced after being carefully cooked, and first give the juice; then in a few days a little of the pulp, which is easily digested, but of very small quantities. The small bone of a fowl, held by the mother or nurse, may afford benefit by being sucked; and soon attempts will be made to bite and chew it by the child, as nature

has indicated ; these little extras, with the milk, should be the only food.

“An old but very good idea practised by some mothers is to allow the child to bite on a silver thimble just at the time the first teeth are sprouting. The effort to bite pierces the thin cuticle and gives the child relief if done at the proper time. Do not feed the child on vegetables, nor fruit, nor bread until the double teeth are cut ; then the indication is to feed with a little bread in which the starch is changed, as an adjunct to the meat and milk, but by no means to give any food that will ferment in the child’s stomach.

“If you follow this course your child will be a happy one, and will bless you throughout life as a prudent mother. So much depends on the treatment of our little ones at this particular juncture of their existence that the future of their lives ought always to be kept in mind when preparing their food. If possible, see to this yourself, and not leave it to a nurse or servant. Especially see to it that when more solid food is given it is properly minced, or well boiled or baked, and only in very small quantities.

“Avoid, as you would poison, the habit of giving a child sweets, chocolate, tea, coffee, or any stimulant and cake between meals, for it destroys the appetite for plain wholesome food. If you begin to use these things your trouble will have no end, for once tasted they will want more and cry for it ; then if you give a child what it cries for you pay it for crying.

“Now, my dear, in conclusion, let me just add this—if you can muster up pluck and determination sufficient to carry out the ideas I have given above you will never regret it. Your children will bless you as numbered among the saints in this life and sure of everlasting glory in the next.”

The above letter was written some years ago, and resulted in great satisfaction in rearing the child referred to. I will state, however, that in giving any detailed series of foods suitable for one child, they may not suit another when prepared in the same way or given in the same quantities. In any case there must be the exercise of good judgment; and never allow eating cake, sweets, or fruit between meals.

In concluding this chapter please bear in mind one more particular duty devolving upon the mother, that is, to have personal supervision over the kitchen with regard to having always a plentiful supply of hot water and a hot oven. These two most essential requisites are generally most neglected; let them have your attention. If the fire cannot be kept up continually, have things so arranged that by means of a spirit lamp, gas stove, or some other device, water may be heated quickly for use in times of emergency.

And one more point,—do not be afraid to put a good big hot-water bottle in the bed, to take the chill off during a season of damp, cold weather. I do not recommend leaving it there all night, but it is an excellent warmer at bedtime when the room is not otherwise heated.

CHAPTER IX.

THE PHYSIOLOGY OF COMMON SENSE.

MOHAMMED is said to have milked his own goats, mended his own sandals, lived chiefly on barley bread, and his family on dates and water. The simplicity of the *menu* among Orientals gave little work or worry compared to the constant and unwearied diligence necessary in these days among civilized nations.

Porters, servants, cooks, and stewards have their hands full in preparing an ordinary meal of "varied and fanciful diet," and with three or four such meals a day there is no rest scarcely day nor night, while the worst features of the whole thing are the great expense and unrest to the digestive organs. In nine cases out of ten the porters, servants, cooks, and stewards enjoy far better health because of their work and less stimulating diet, than the rich and comparatively idle family whom they serve.

There came under my notice last year the case of a young lady, nineteen years of age, who, from delicate health, had been pampered up by her mother, so that she really believed it was inexpedient for her to undergo any physical exercise, except some very slight tasks, and in very fine weather.

The mother was asked to accompany her husband on an extended business tour across the ocean and

in distant lands. The difficulty was in leaving this delicate girl in charge of the house and her two brothers, who were going to school. "She will be all right," said the father, "and better in health when she is alone and has something to do."

Month after month as letters reached the parents in far-off countries they conveyed the cheerful news from their children that "Miss Delicate" was strong and well. She wrote her mother some seven months after leaving home: "I am perfectly well, dear mother. The care of the house is just what suits me; I can attend to everything so easily and without fatigue that I feel like a new creature. Yesterday I rode twenty miles on my bicycle." Here was proof of the benefits of work and responsibility. When winter came on she wrote about skating, tobogganing, sleigh driving and other exercises, besides all the household duties in which she had become an adept. A year passed before her parents returned; they were proud of her indeed when seeing the vast improvement in her health.

But what did her brothers say? They said they never enjoyed better health, but their sister had starved them; she would not make the pies, puddings, cakes, and other delicacies they had been accustomed to have when mother was home. There, then, was the secret of the vast improvement. The active exercise in the open air, with the work and responsibilities of the house upon a limited allowance, produced a change in the diet table most conducive to health.

In the case of Mary and Martha, where the Great Teacher answered Martha's complaint in

the words, "Thou art careful and troubled *about many things*," indicates that Martha, who was preparing the meal for their Guest, was getting too "many things" on the table; it took up too much of her time and attention; it gave her too much care and anxiety; it was, in short, so much "trouble" that the Divine Guest was not pleased. Most people when they are really hungry would prefer some plain, substantial food at once, rather than wait, and wait, until hot biscuits, fried bacon, custards, blancmanges, or griddle cakes are prepared in all the latest styles of cooking. The preparation of so many articles of diet is not only troublesome and expensive, but unhealthy.

Why are there so many suicides in these days of starchy bread and fanciful diet? Because, as one of the new discoveries of hygiene proves, the emotions we have within us are not regulated or restrained. It is a singular fact that while the habits of eating, drinking, and late hours produce impaired digestion and varied forms of diabetes which so many are troubled with and don't know it, as the general system becomes weaker the immoral bodily passions grow stronger.

Under such circumstances rest, sleep, recreation, and food do not recuperate the languid physical powers; food does not properly digest nor assimilate. The evil emotions, on the other hand, are stronger, and when exercised according to desire there follows greater fatigue, relaxation, and exhaustion, during which time the blood undergoes a change and sends poisonous atoms throughout the whole system and to the brain. This sometimes

produces, when the vital forces are continually drained, a sensation of melancholy forebodings, with depression, that causes the life to be suddenly cut off by suicide.

This is the system by which many take a short cut from time into eternity, while friends lament and wonder at the mysteries of Providence. Still others go on in the same path ; the vital tone is reduced, life's forces are wasted, evil emotions are exercised, while weakness increases and disease lays hold of some bodily organ ; all because unbridled passions are allowed to run wild like ferocious animals, who have neither reason nor judgment.

To some extent the same is true in regard to love, hope, and joy, which a religious mania often awakens to such a degree, that when unrestrained by the exercise of "a good judgment in all things," or not regulated by a proper discipline or ritual, the nervous enthusiast becomes so zealous in the exercise of these pleasurable emotions that the bodily strength is reduced, while the animal nature becomes stronger and more dangerous. "The wicked shall not live out half their days," and although they may be ever so pious, ever so anxious to do good to others, ever so devoted to what they consider their duty, they are of all creatures most miserable ; they are blind leaders of the blind, who, instead of walking in the narrow way that leads unto life, are in the broad way leading to destruction.

There is, therefore, as much necessity for restraint in the exercise of love, joy, hope, and peace—

peace! why there is no peace possible in such cases —as there is in anger, fear, hate, and jealousy. There is no peace to the wicked, and the wickedest persons are those who abuse their own bodies, shorten their own lives, and leave those dependent upon them for a living to be provided for by others. Such people deserve no tombstone to mark their grave, nor any cherished memories in the hearts of the lonely ones who are left without bread.

Why are so many people troubled with constipation, and resort to all sorts of patent medicines for relief? It is unquestionably because they do not live as formerly, before the present system of starchy bread, superfine flour, excessive use of pastry, and all the new-fangled arts of the present style of cooking and fanciful diet came into vogue.

In America people are obliged to begin or finish their breakfast with raw tomatoes or a slice or two of melon, and end up the evening meal with a baked apple or stewed prunes, in order to keep their bowels open. They soon find, however, that figs, raw apples, or senna tea become necessary laxatives, to counteract the effects of starch, sugar, fat, albumen, and all the other indigestible substances combined: while if they resorted to a plain, simple diet, such as uncivilised nations usually live upon, or if they would fast or use abstinence as prescribed under the Law of Moses they would soon find relief.

My advice to such persons is to use minced or potted meat, with prepared cereals. If these cannot be procured, whole wheat meal, such as I have described, should be used with the meat. Good,

pure olive oil is an excellent laxative. Water increases the power of the saliva and the gastric juices.

Drink nothing during the time of taking your meals, but drink two tumblers of hot water between meals four times a day. This practice, with moderate exercise, will soon place you in a new state of existence. Insufficient water, or water of an abnormal quality, is often a cause of constipation. Those who are in the habit of cheating the natural desire for water by taking wine, and many people, especially women, take less water than they ought to drink, because it will pass through the kidneys, which the exigencies of society sometimes render awkward, but nevertheless must be promptly attended to.

In consequence of the modern system of eating and drinking, the food ferments in the stomach, producing wind, indigestion and dyspepsia, in one form or another, and then a dryness of the mouth, the throat, and the intestines as well, until thirst is created. To quench this thirst tea, coffee, soda water, ginger ale, barm beer, wine, spirits, or something weaker or stronger among the legion of manufactured drinks, is taken into the stomach, and soon the dryness increases and more drink is taken. What nonsense !

Why not take clear, pure water ? It is too common ; it has no taste ; it is horses' drink ! Indeed ! Then you must suffer. But, remember, water is wholesome, the most wholesome drink of the lot, and was provided by the Creator for quenching the thirst of his creatures. It is absurd to condemn

water for the above mentioned reasons. As a matter of fact, it forms the larger part and really the wholesome part of the beer and other drinks which so many are devoted to.

How sad for a reflective mind to look on the scene, so often witnessed in America, of a child, a mother, and, at times, a whole family at every meal, sitting round the table, refreshing (?) themselves from a huge pitcher of ice-water. Sip, sip, sip—men, women, and children, pouring the noxious stuff into their stomachs, and that in the heat of summer. There is, perhaps, nothing that interferes with digestion so much as this habit of using such drinks and not using more clear, pure water.

The benefit people often realize from a sojourn at mineral springs is almost entirely due to the flushing out the system gets by drinking so much of the waters. Waste products are dissolved and washed away by the kidneys. Any pure water drunk for a lengthy period would doubtless produce as good effects. If people drank more water and used less improper foods there would be less kidney diseases, neuralgia, rheumatism, heart trouble, and other ailments.

The plan is to eat seldom: three times a day is often enough. The idea of a "little and often" is unwise. If you wish sound sleep, and to rise with a feeling of rest and lightness and a good appetite for your breakfast, avoid suppers. Give time to the stomach for digestion. If you occasionally miss a meal, or go a day without a meal, it will do you good. In times of weakness, when the

least exercise fatigues you, that is the time to abstain from food, instead of taking iron as a tonic, or some other drug equally useless. There is generally plenty of iron in the blood. There is iron enough in the blood of forty-two men to make a plough-share weighing twenty-four pounds. To avoid weakness and pain see to your diet, as there are warning signals sent for your good.

Pain is a dreadful word. Its very pronunciation causes a creeping sensation over the mental faculties. It is unpleasant to write it even on paper. To feel it is worse. Why was it ever born? Born! yes, for it has its birth, life and death similar to the generations who have been afflicted by its existence. But pain has its object and purpose. It is not a riddle to which earth can give no answer, it is a sort of speaking trumpet and appeals to the stomach for relief. It draws attention and sometimes compels attention to an injured structure of the body in a sort of inarticulate prayer. The pain of weariness enforces rest and sleep. It is the grand indicator, that leads to the correction of an injured part; it is an earnest prayer from that part to the will for a change in the mode of living. In this way it is an educator of invaluable service.

How many ambitious people would work day and night unceasingly, only for the element of painfulness, which the weary brain or body indicates as being overwrought when food, sleep and rest are enforced. But the interesting question is, why not strangle pain in its birth-throes, so that it will never see the light. Have it quenched before it assumes the life of torment.

According to modern scientific medicine, the most sovereign of all known panaceas is to remove the cause, not the cause of pain, but the cause of disease, which is the cause of pain. Then to strike a death-blow at pain you kill the cause of disease. This is possible, desirable, important and necessary.

I have seen such excellent effects from the use of the diet and treatment recommended in these pages, that I can imagine a time coming when mankind in general will reach a stage of mental capacity and physical culture, so as to be able to exercise a wide and masterful victory over natural appetites and passions, to such an extent, that physical vigour and material prosperity shall go hand in hand without the disorganization that now prevails.

Then pain will be reduced to the minimum. If you wish to know when this wonderful period will be reached, the reply is, just as soon as you and everybody else continues to practice dietetics and hygiene according to the Law of Moses and the teachings of the Decalogue and the Cross.

These teachings, and the influence of these teachings, and a close observance of the principles of these teachings, can, and will enable man to practice self-denial, restrain and control his evil emotions, and live as he ought to live. This is no Utopian theory. It is a philosophical, medical, religious, and common-sense fact ; but it requires some culture, some capacity, and a good deal of experience to grasp it. It is said that one of England's great statesmen, who was once the Prime Minister, was cured of insomnia by the use of hot water and a proper diet.

A fair and ruddy countenance, so much desired by everybody, can only be secured by attention to what you eat and drink. In some of the narrow streets of our large cities are to be seen among the poor people, who live in an inexpensive style and work hard for ten to twelve hours a day, some of the most ruddy complexions to be found anywhere. When their faces are clean, and their holiday clothes on, it is a fair sight to witness father, mother and children going to church on a Sunday morning, with bright, healthy countenances, seemingly as contented and happy as angels.

And they live long, save money, escape many of the ills their better-bred masters endure, and with a stronger and more vigorous progeny to leave behind them. It has been proved that among this class of people, when one becomes a foreman or master, which secures to his family a larger income, there soon becomes the prevailing desire to live higher, eat and drink more costly viands, which increases their expenses more rapidly than the increase of salary provides for, until a discontented spirit is fostered, which begets desires for more and more luxuries.

Then ill health creeps on, a physician is called in, and more expense is contracted, which they are unable to meet. This is the cause, in many instances, of the harassing labour troubles of the age. Upon reflection, they find the former days were better than these, and they would willingly exchange situations for the formerly humble one; but habits are contracted and associations formed which are difficult to break loose from. There is no other animal in

the world would follow such a course, and yet man has a brain, heart, judgment and reason.

In the days of Harvey a young man had his heart exposed by disease ; Harvey handled it without being felt by the patient. There are multitudes of people who act in a heartless, unthinking, foolish manner in regard to their health. The management of our bodies may be compared to that of an estate. It may be done so as to produce a large increase or cause bankruptcy. Every health hint, which is based not only on good common sense, but on scientific principles, should be well studied, practiced, and improved upon. The difference between health and wealth is seen most clearly in the fact that the poorest man would not part with health for money but the rich man would gladly part with his money for health.

The sunshine of pleasure has much to do with the promotion of health. People do not laugh enough. But how can a man laugh when he does not feel in the humour? Why, cultivate it ; our emotions can be restrained or cultivated at will. They may be exercised so as to surround ourselves continually with an atmosphere of sunshine. Good humour and cordiality, mirth, and a neatly turned joke are matters of education. If corroding cares come—and they will—it may be well to grieve for a short period, but let it not last long. Shake off the disturbing sensation as a matter of duty to yourself and to others ; dispel the maelstrom of care and grief as King David did, and rise up and drink hot water, and an hour after eat some good minced meat or potted beef. Allow the well-spring of a

radiant smile to creep over your face, though it may be sprinkled with tears. As soon as possible get on a little laugh. If you have to cry and groan, do it by yourself, and let the time be short. Do not retail to others the sad disaster which opens up the wound afresh, but be heroic, reasonable, and put a cheerful courage on, for your trouble is not nearly so sad as it might have been.

Some people are sour and annoyed at every little mistake or mishap. The better plan is to pass over as unworthy of notice many of the blunders of others, for we ourselves are not perfect. A minister who had been out on an afternoon's partridge hunting with a visiting friend, being weary at night, the servant read a chapter at evening worship. The servant read very slowly and precisely as follows:—"And Abraham begat Isaac, and Isaac begat Jacob, and Jacob begat the twelve *partridges*." The blunder came on the guest like a galvanic shock, and he rushed out of the room with his hand on his mouth to prevent an irreverent explosion. That was far better than to be annoyed.

A woman told her minister that her husband was suffering from "*ulsters*" in his stomach. Those who retail their troubles are frequently guilty of exaggeration, instead of looking on the bright side. Some mistakes, however, are hard to laugh at, like the following.

A mother had a couple of children sick with the measles, and wrote to a friend for the best remedy. By mistake she received the following recipe for making pickles. The mother, thinking only of her

children, was horror-stricken when she read:—
“Scald them three or four times in very hot vinegar, then sprinkle them with salt, and in a few days they will be cured.”

You can soon cultivate the habit of cheerfulness, especially during meal times, if you only try. Exercising cheerfulness is like giving charity ; it is returned many fold. The effort is healthy; without effort nothing is accomplished that is worth straw ; and that is about the least nutritious food for animals that exists. If you wish an acute brain, eat plenty of barley. Barley is the king of cereals as a brain food, as well as a muscle food.

CHAPTER X.

HINDRANCES TO LONGEVITY.

IT is related of Dr. Abernethy that on one special occasion a wealthy gentleman consulted him on the precarious state of his health. When the doctor had examined him and found no serious organic derangement, but an irregularity of the system, caused chiefly by high living and the lack of exercise, he gave him the following prescription : “Live on a shilling a day and earn it.”

Over-eating, improper diet and drink, shorten more lives than all the accidents, pestilences, wars, and contagious diseases in the world among the adult population. What shall I eat, what shall I drink? These are the vital questions of the age. The large majority of people want the whitest bread, made of the finest flour to be had in the market. They want also the crisp pastry, the sweet cakes, tea, coffee, cocoa and milk, with sugar in them all.

They want pies, puddings and custards, made of starchy white flour, sugar, eggs, milk, fruit, lard, and seasoning to taste. Before eating a variety of the above, they have partaken sufficient roast beef or other flesh meat, with potatoes and other vegetables to satisfy the appetite of any ordinary person, and then add coffee to the superabundance with which to wash it down, regardless of the capacity of

the intestines, arteries, tissues, gastric juices and other organs and agents which have to handle the vile conglomeration, which was never designed for the human stomach. It is no wonder life is made miserable and cut short.

The practice of softness and needless self-indulgence is followed by sore penalties. The solid parts of our bodies are continually wasting, and require to be repaired by fresh substances. Therefore food must be taken in due regard to the exercise and waste. The fluid part of our bodies continually wastes also. Remember that there is but one fluid in animals, which is water, and, therefore, water only is necessary. No artifice of man can produce a better drink.

The fluid of our bodies is to the solid in proportion as nine to one. Therefore a like proportion should prevail in the total amount of food taken. Warmth is essential to all the bodily functions, so an equal bodily temperature should be maintained by exercise, by clothing, or by fire. Exercise warms, invigorates, and purifies the body and is the best warmer of all.

If people would dine plainly, dine regularly, and not worry about their food so much, they would enjoy life a thousand times better and live a great deal longer. Indigestion—that great bugbear of the age, which produces more “fits of the blues,” more irritability of temper and grumbling than anything else—would soon lessen its hold upon us, and a more cheerful disposition, more laughter, more pleasure, and a happier, joyous life would be the experience.

It is well to always keep in mind, if you wish to be healthy, that disease is an entirely unnatural condition for man, notwithstanding its great prevalence in the world. It is nature's warning that her laws have been disregarded.

The prevailing habit is to eat three or four meals a day, and each time a little, if not very much, in excess of the actual needs of the body. One of the first acts of digestion is to convert the starch of the food into dextrine. The last act of digestion is the passage of the food into the circulation, and the smaller intestines are supplied with millions of hair-like glands, through which the food originally taken into the mouth must pass.

From a long course of eating too often, every time slightly, if not a good deal, in excess of the requirements of the system, a plethoric condition arises, the tissues are clogged by the surplusage deposits, until after a series of meals, perhaps one hundred or one thousand, the absorbent surfaces of the intestines can do no more, the tissues succumb to the pressure; then perhaps an extra dinner party takes place, and in a day or two after there is a break down. So and so is very ill; one meal more or a little too much was the straw that broke the camel's back. It is quite useless in such cases to think exercise is going to give relief. The best remedy is to fast; let the stomach have a good rest. Go a day without a meal. Deny yourself, for if you dont you will suffer. It is better to do this than to take drugs.

Exercise is a good thing always, but, if carried too far, when the system is in the condition just referred

to, it is dangerous, because the tissues are not in a condition to stand a strain. It would increase the blood pressure about the heart-muscles, and might cause permanent trouble.

This is the difficulty often experienced by those who adopt cycling as a remedy for indigestion. Doctors differ, of course, on the question of permanent benefit to dyspeptics by the use of the bicycle. Some find it an universal panacea for all dyspeptic ailments,—a regular cure-all remedy, with a sort of talismanic virtue,—while some eminent physicians, on the other hand, state that dangers are ahead for people who start their cycling career young in life with a sound heart and healthy arteries, and the middle-aged man whose tissues are already deteriorated, because they miscalculate their own powers of endurance.

The effect upon the liver and kidneys, the increase of circulation, the very exercise which is so agreeable, is apt to convert them into real devotees to cycling, so that all their spare time is occupied on the wheel. Their dyspepsia disappears, it is true ; but, at the same time, the immoderate exercise,—for in nine cases out of ten cyclists become so infatuated that the agreeable exercise causes them to take long rides,—may, before they are aware of it, develop a chronic degeneration of the heart, and the bursting of an artery, or the over-strain of tissue takes place. Take a word of advice from the sage doctor, who says, “There are dangers ahead for those who begin their cycling career young in life.”

It sometimes happens that a person is fagged out

and utterly tired, but several miles from home, owing to enthusiasm and renewed strength occasioned by former moderate rides, has gone too far. Then, with a fool's stubborn pride and inability to understand the dangers of doing too much of a good thing, redoubles his or her efforts to get home again, and so overstrains the system. Irreparable damage is often the result of cycling. Increased blood pressure and heat accompanies a long ride or a quick pace, so that very grave danger, and may be sudden death, is the consequence.

A friend of mine was riding her bicycle in Battersea Park. The heat was great, and her husband was sitting under the trees waiting his wife's round, when within a few yards of him, she fell, and was taken up dead before he even saw the disaster. The death was caused by the bursting of a blood vessel on the brain. In this case the bicycle and heat determined the moment of death, though they did not cause the death, for the *post-mortem* proved that the blood vessel was so thin it might have burst under ordinary circumstances. In this case death came in a second.

One physician, of approved ability and experience, says : "Although cycling in moderation for moderate distances at a moderate pace cannot be anything but beneficial to young and healthy adults, I contend that, carried out in such a manner as to keep up a material acceleration of the heart's action or increased blood pressure for any length of time, it must of necessity, sooner or later, produce disease of the circulatory apparatus."

Another distinguished authority says : "The

immediate effect, it is true, is to improve the general health, but in all probability it is insiduously generating disease in the heart and arteries. Nor are the symptoms or signs of such disease apparent until after considerable damage has been done." The best safeguard in everything is moderation. In cycling and athletics or any other exercise the safest course is moderation in eating and drinking, so as to keep the digestive organs in good condition. The danger is then much diminished in case of an immoderate exercise in cycling or any other cherished ventures.

One of the greatest hindrances to longevity is centred in the prevailing ignorance concerning dietetics. Starchy foods, especially the way they are now prepared, and the style and manner of eating, cause untold injury to multitudes every day. Starch may be compared to a candle burning, the bright flame of which is indigestion. An extinguisher must be put over that flame. This book is intended to serve that purpose. It is a curious fact, that if you put a candle 30 degrees from the perpendicular, it needs no snuffing, and gives a better light; so, if you change starch in the manner I have indicated, it makes it wholesome and of very much greater value in nourishing the system. If this were generally observed it would work wonders with this generation, and bequeath a blessing to our successors.

Alas ! how few will take heed to their diet. Dr. Abernethy said : "No person could be persuaded to pay due attention to his digestive organs until death or the dread of death was staring him in the face."

It is an unfortunate circumstance, but none the less true, that the love of good cheer actually increases with the enfeeblement of the digestive organs, and this kills multitudes of people.

Some one will ask why starch is so indigestible? One reason is that the starch contained in bread, potatoes, vegetables, rice, tapioca, corn-flour, and other such foods, is insoluble in water, and any substance that is insoluble in water cannot be absorbed. It therefore cannot minister to the nourishment of the body. But if the starch is changed by the saliva of the mouth and heat of the stomach into dextrine, glucose, or grape sugar, it then becomes so altered that it is ready for further change, and can be finally digested.

In case the food sits heavily on the stomach, or flatulence is experienced shortly after a meal, these are clear proofs that the salivary glands are not doing their work with sufficient vigour to change the starch, and the consequence is an ill feeling, a dull headache, or some other trouble will be the result. When such warnings take place, stop the diet at once. Change is demanded, and the demand is for food in which the starch is changed, or to nitrogenous foods which are as free from starch as possible.

If you cannot obtain satisfactory gluten flour and other cereal foods in which the starch is changed, eat only minced or potted meats, and drink only hot or warm water. The many hindrances to longevity cannot be enumerated in the small space at my disposal. Sir Walter Scott explained "sound health" as follows: "The sublime and delectable pleasure

of being well." Count Tolstoi has recently expressed, in his own quaint style, the exceeding fallacy of eating too much. "Substitute," he says, "the usual tasty dinner by one not so good, and notice the difference in the amount eaten." I have already referred to the experience of Sydney Smith. It took him seventy years to find out that he had always eaten too much. Cornaro found it out when he was forty, and then allowance himself to twelve ounces of dry food and fourteen ounces of liquids per day the rest of his life. He lived to the age of 100.

But there is a kind of universal conspiracy in the world to incite us to eat too much. Say that you think one plate of food is sufficient to satisfy one's hunger and you will be called an idiot. If you refuse the tempting dishes placed before you, and honestly express your opinion that it is wrong to eat of them, because hunger is appeased, you will meet with a look of mingled scorn and pity.

A guide will accompany the sportsman in the East and eat his piece of hard bread and a few dates, which satisfy his wants; while the latter is afraid of dying with hunger if he does not take with him several baskets of provisions, boxes of preserved meats, and a hamper of drinks, which the guide, on his spare diet, has to portage.

This excess is absurd, and from the point of view of health and physical strength, there should be reform. This abundant eating gives rise to many complaints, which cause an amount of suffering that far outweighs the momentary pleasure of eating. The majority of people eat three times more than is

necessary. Some mistaken people and even some physicians recommend cream as an article of diet, without ever warning the patient not to take too much other fats at the same time. In one part of this work I referred to the simple diet of uncivilized nations, and perhaps shocked some sensitive minds by doing so.

Let us look at the question of bread making in the early times and see if we have improved upon it. Among the Greek aristocrats, of whom Homer gives a description, bread was not, as with us, an adjunct to, but an essential portion of the principal meal of the day.

The Chiefs of the heroic period lived almost exclusively on two dishes: roast meat and wheaten bread. Barley bread had been eaten from time immemorial, but when wheaten bread was introduced, barley was preferred in the form of porridge and gruel. Zenophon's army was treated to "leavened bread," which indicates that it was not a general custom to ferment the bread that was in ordinary use. The leavened bread was looked upon as a luxury. Even this kind of bread was finished off by being roasted or toasted on a spit. The use of the oven was considered indispensable, but the starch in the cereal had to be still further changed by a nearer approach to the heat, whether they understood the philosophical principle of it or not.

In Rome, the Cæsars took a lively interest in the mode of baking, and obliged each family to bake its own bread in ovens which were carefully inspected. In the kitchen, there was the mill which ground the meal out of which the bread was care-

fully baked. There were no centrifugal reels for the removal of all the most nourishing properties of the wheat. Some years ago, during the excavations at Pompeii, an oven was discovered which contained several charred loaves, on which the baker's name was plainly seen, showing of what flour they were made. The loaves weighed about two pounds, and were round and indented to admit of breaking them into eight equal parts.

In Imperial Rome, butter was not used upon bread. If crisp pastry was made it was made so with the use of oil ; not butter. Consequently the people could not eat as much as they do now of fat, fat, fat, which has to be in every thing to make it short, crisp and tasty, in order to join in the conspiracy of making people eat too much so that they will be "out of sorts" most of the time. This shortening shortens not only the pastry but the life as well. The reason of the indentations in the two pound loaves found in the ovens at Pompeii was no doubt for the purpose of letting the heat into the centre of the loaf. This is an all important device in baking, as it helps very materially to render the bread more easily digested. The small loaf with a crust all round it is better than a big loaf in the centre of which is the soft pulp that scarcely any stomach can handle successfully. In an ordinary oven which has a temperature of about 500 degrees Fahr., the inside of a loaf of bread has a temperature of only 212 degrees. If you examine such bread under the microscope the starch appears as lively and the starch cells as unbroken as in the natural flour.

I am well aware that this point will be questioned

by some analysts, but I have repeatedly tried it, and have proved the fact that the oven does not change the starch, except it may be in the crust, and then not in the manner which the saliva of the mouth changes it.

Thin cakes were the style in which bread was baked in the early days of British history, and were far more healthy than the eight pound or even two pound loaves in our day. The heat penetrates to the very centre of thin cakes, while the moisture is soon evaporated.

“ Make ready, quickly, three measures of fine meal ; knead it, and make cakes on the hearth,” said Abraham unto Sarah, his wife. In the old times it appears they understood the best way to make, not only flour, but bread also.

In the evening time of this nineteenth century, bread is not only made by a different process to what it was in the early days of Greece and Rome, but it is made from flour which fashion has deteriorated from the old style made by hand in the kitchen mill to the superfine white article consisting chiefly of starch, with the most valuable mineral and nourishing substances of the vital part of the wheat grains ruthlessly rejected.

It is no wonder so many lives are cut short and others are constantly “ out of sorts.” Starch does not form any part of the blood, nor does it build up tissue, unless it is changed. The every day waste of tissue can only be replaced by the proper assimilation of food. It cannot be done by medicine. Science cannot discover any such vitalizing properties as nature has provided for the digestive

powers of the human system. When an attempt is made to aid the digestive powers, there is no unique or wonderful remedy that can possibly exceed the use of proper diet, in proper quantities, preceded, as in some cases is desirable, by an entire fast or abstinence.

There is no beverage of such importance to the deranged system as hot water taken between meals. The tonic and recuperative forces experienced by this treatment soon prove their value. Their powers of nutriment impart stamina, the power of endurance, and a staying physical power from the food partaken of, that will surprise those who will adopt the change of *regimen*, from the abundance and variety of food they have been accustomed to.

Life will not only be lengthened, but it will be enjoyed. The tired feeling of delicate women, and the fagged-out weariness of busy men, will depart entirely when the digestive organs are in good condition, so that the food will assimilate and be effectually handled by the tissues.

There is no magic in this ; it is Nature's remedy. Some declare that their digestion is all right. They feel no oppression nor any distress from what they eat or drink ; but they have a cold, a little rheumatism, or an athletic heart, caused by too great exercise ; a little neuralgia or slight sore throat. Very well. But you would be free of these troubles if you took proper diet. The ability to endure greater physical exertion without fatigue would surprise you.

The power to resist cold, wet weather, east wind, drafts, and extra work, trouble and fatigue will

open your eyes to the invaluable service rendered by this unparalleled test of merit over all the remedies ever discovered for the cure and prevention of disease. It, by one herculean stroke, removes more hindrances to longevity than any other one system in the world.

CHAPTER XI.

DIFFICULTIES IN ADOPTING THE DIETETIC SYSTEM.

THE annual review of the progress of *materia medica* for 1896, published by that eminent medical journal, the *Lancet*, shows conclusively how doctors differ on certain new scientific remedies which have been discovered, discussed, recommended, and then dropped out of use after extensive investigation and experiments. *Materia medica* has always been noted for experiments on dogs, cats, frogs, pigs, sheep, etc., as well as on the human system, and there are more records of such experiments now than ever before, and yet a wide spread multitude of suffering human beings is increasing every year.

One experiment is recorded as follows:—"In the rabbit, the centre for facial movement and those of the fore limb are better developed than others; whilst in the dog and cat the centres for the fore limbs are better organized than those for the ears and tail." This may enlighten some people on brain histology in the different lower animals, but of what benefit can it possibly be to the ordinary practitioner in medicine?

I bow with raised hat to the medical profession and salute them with courteous respect, so long as they keep on the tidal wave of special research,

calculated to improve upon former methods of treatment; but when they begin to devote their energies exclusively to the technical investigation of the tissues of a rabbit's ears and tail, in order to obtain a true facial expression that will give no relief to the multitudes of suffering humanity, or to such a degree as to neglect more practical lessons in therapeutics, there is to be a period put down after the M. D., and before the word respect is written.

When the highly cultured, scientific medical profession devote so much time to experiments, there can be nothing very perilous in a scientific and common-sense trial of a simple remedy like dietetics and hygiene, which I am here advocating, and have experimented with successfully for twenty years. Its simplicity is not so very simple after all. Its utility is unsurpassed. Its safety is unprecedented.

Its effects are as instantaneous as digestion. Its permanent results are the highest recommendation of all. Yet specialists are as necessary in this treatment as in any other line of therapeutics. A person specially trained with experience in the treatment of lunacy is recommended as being fit to be placed at the head of a lunatic asylum, especially if he is a medical man.

Crime is now considered a medical question, and medical men are being sought after for the position of superintendents of prisons. So if medical men could be persuaded to adopt the system of dietetics and hygiene as a specialty in their practice, the improvement in personal, family and national

health, strength and vigour, would soon mark a new era in the history of *materia medica*.

But the great difficulty met with in the practice of this system, is that it interferes with the popular desire to eat and drink such articles and in such quantities as popular practice demands. It is the "one thing needful," yet most despised. It is the "pearl of great price," which requires a person to part with all his cherished possessions in order to possess it. If he will but do this, a new charm will come over him with talismanic power such as he never imagined could exist during his days of suffering.

Another great difficulty in the adoption of this system is that there is no money in it. The 50,000 medical men and chemists in Great Britain, if this system were to come into general practice, would find their occupation gone to such an extent that they could not get a 100 guinea fee as easily as they do now, nor could the chemists reap such immense profits. I do not ignore the medical profession nor the chemists. They are a necessity ; but with all their knowledge, skill and valuable services, they should devote more attention to the prevention instead of the cure of disease, and they know better than anyone else the evils of the present mode of preparing foods and drinks, and the gigantic evils of the every-day diet table and drink habits.

A word from a good physician or chemist has a wonderful influence upon their patients. If that word was an earnest warning against the use of such an abundance of starchy foods, and against the habit of drinking during the time of eating

their meals, a great revolution would soon be effected—and they know it.

The fallacy of eating too much meat is very widespread. It is met with everywhere, and all the indigestion connected with our diet table is harped upon as caused by eating so much flesh meat. There never was such a fad as this before in the world's history. It is not the meat. For many years I thought it was, but experience, common sense, and the result of experiment have proved the contrary. It is starchy foods, white bread, and too much of these, with drinking at meal times and all other times on the least emotion of thirst, that causes the deep-seated and widespread trouble.

I would prefer and strongly recommend to those who indulge in suppers before bed-time to eat a small quantity of minced beef and a little biscuit made of starch-changed flour, than thin bread and butter, a bit of crackers and cheese, with a glass of ale or anything else that is considered light and easy to digest. In nine cases out of ten the minced beef and thin biscuit made as directed will give no trouble,—no dry mouth and coated tongue in the morning; while ordinary food will, unless there is a very normal condition of the salivary glands and digestive organs. This has been proved. But the best plan is not to eat suppers at all.

Some men smoke a great deal in the evening. The pipe is seldom out of their mouths until bed-time. If they get "out of sorts" and lose the desire to smoke, or do not enjoy their smoke, they do not consider it a warning signal, but take medicine to relieve the ill-used tissues and intestines, and are

in a few days "all right." It is most absurd to treat the beneficent warning in that irrational manner. There is no cavalier action about it. It is low and selfish.

I have known many men smoke so incessantly from boyhood until they were forty that they could never smoke again. All the sensations of pleasure from a good smoke were gone ; they had had a short life and a merry one in that sphere.

The number of deaths that occur every year from cancer of the tongue or mouth, caused by smoking, is on the increase. A moderate smoke will not injure any person above twenty-one years of age, and no one should smoke till that age. As soon as a person finds no relish for smoking the very best thing for him to do is to change his diet, or take a good, long rest from food altogether.

In the enumeration of hindrances in the way of adopting the system of dietetics as a general remedy against weakness, fatigue, loss of appetite, sleeplessness, irritability, sallow complexion, poor nutrition, impoverished blood, neuralgia, rheumatism, heart trouble, diabetes, catching cold easily, or any indisposition, there is this difficulty : that nearly every person resorts to some advertised remedy of drugs. The drugs may afford temporary relief, then soon follows a relapse. In a short time another remedy is proposed, and so on, while the *finale* of their desires and goal of their expectations is to be able to eat well. A good appetite is the cherished boon of all their hopes. Alas! that such an idea has become so deep-rooted in the minds of the people. This is one of the stupendous fallacies

of the age. A good appetite may be the harbinger of some very acute and persistent disease, especially when the blood is clotted with impurities, and the tissues overloaded with foul matter from a fermented, starchy food, taken in too great abundance from the desires created by an artificial appetite.

In such cases, tumours are often formed, irregularities are produced, chronic derangement of some of the organs is liable to settle with a firm grip, or something serious threatens the patient, until it is decided at the eleventh hour to consult a physician. I will not invent any picture that follows, but it is surprising if in a few months the patient is not found in an etherealized condition, undergoing an operation in which surgical instruments are wielded by skilful hands.

This is an age of operations. They are quite fashionable in many parts. If the appetite had not been stimulated by tonics, so called, which term is generally understood to be drugs of some sort or other, the system would correct itself of the trouble, especially in most cases, and no danger would be experienced. It is the apparently healthy people who are suddenly cut down by disease, while the very delicate ones are more careful, and live longest. So many people are sure they are in good health that when some slight indisposition is felt they take a tonic, not of pure water, air, nor rubbing, but of drugs, and the result is an operation and perhaps death.

Notwithstanding the many difficulties met with in adopting a system of dietetics as a general therapeutic agent, there are thousands of people

beginning to understand that all other remedies are but palliative, compared to it. A diet of minced meat and prepared cereals, with a drink of hot water between meals, keeps the system in a healthy condition, so that to avoid "catching cold" from every little draft, or blood poisoning from some little infection, or typhoid fever from some floating bacilli, or even consumption from contagious germs of tuberculosis, the system should be strong, the circulation normal, the tissues healthy, and the whole system capable of resisting the effects of these dangers.

No person should be subject to "take cold" upon every little change of temperature. We were not made as hothouse plants, but as sturdy perennials, to stand the storms to which a life that is worth living must necessarily expose us.

Multitudes of people are half scared to death over the germ theory of disease, in these days of scientific nonsense. I say nonsense, because, it diverts the attention of the public from the REAL cause to a supposed one. It sets people hiding around here and there to escape bacilli, when they should be striving to live such lives as God ordained they should live, and be able to maintain a standard of vitality against which the onslaughts of bacilli would be vain.

This theory turns some physicians from being health directors into vermin slayers. They ignore the necessary instructions for rearing healthy children, and begin to alarm an innocent public with vain imaginings concerning the invisible germs floating about in the atmosphere. This "going after strange gods" is another of the great

evils of the age. The wise doctor removes the cause of indigestion.

Dyspepsia is our great national enemy, and any course of treatment that will effectually lead to its abolition deserves a bonus as great as that which the British nation gave so liberally for the emancipation of slaves. It is not an uncommon thing to see strong men, prostrated by a few hours' arduous muscular or mental strain, become weaker and "more tired" after food and rest, instead of a speedy recovery to their usual strength and vigour. Such men do not enjoy good health. They are strangers to the fullness of life which they ought to enjoy.

I have just read of the sudden death of a prominent Methodist minister in Montreal, which was reported as follows :—"He spent two hours in the gymnasium, in physical exercise, just a week ago, preparatory to undergoing an operation at the hospital." On the same day I read an account of the sudden death of an English Church clergyman in England, who was "busily engaged in parochial work until within the last few days, when he contracted a cold, which developed rapidly, and caused his death on Wednesday."

These two men were in the prime of life and should have lived many years longer. But such cases are legion, and are on the increase, and will continue until there is a general reformation and adoption of a *régimen* which common-sense science and experience, recommend to their attention.

Naaman was very angry when the prophet Elisha sent word to him to go and wash seven times in the river Jordan for the cure of his leprosy. He

aid: "Are not Abana and Pharpar, rivers of Damascus, better than all the waters of Israel? So he turned and went away in a rage." But his servants persuaded him. They said: "If the prophet had told thee to do some great thing, wouldest thou not have done it?" He finally yielded, and simply washed and was clean. Then followed what in every case follows the adoption of dietetics as a therapeutic remedy in disease. Naaman heaped thanks upon his benefactor and offered large gifts.

I have had my hand nearly squeezed into a jelly by persons whom I have met after they were cured. One case in particular was that of a leading physician, whom I had never seen, but, through correspondence, had recommended to adopt this remedy for diabetes. When he met me a few months after, being introduced by another physician who came with him to my office, he grasped my hand with such intense eagerness, and exclaimed, with a beam of pleasure on his face, "you have saved my life," that I groaned with pain in my hand, and could scarcely reply to his congratulations.

After all the cures that have come under my notice of complaints that were considered incurable by physicians, I am strongly opposed to the term, "Home for Incurables," which a charitable public supports with such commendable generosity. From an infant of six months old to a man of eighty years I have seen cured of diabetes, when most physicians said the disease was incurable. They admitted the existence of palliative remedies, chief among which was dietetics, but that was all.

I maintain that diabetes can be cured, and the cure may be as permanent as the cure of any disease, but diabetes, as well as any other disease, may recur again and again unless a proper diet is adhered to.

If the charitable homes for incurables were called by some other name, there would be a sense of gloom raised from the minds of the inmates, the nurses, and all connected with the inmates, and the effect would be like the raising of a dense fog from the atmosphere of an English town and the surrounding country. There would be a brighter, lighter, and more cheerful feeling experienced at once by everybody connected with the institution.

But among other reasons, the dietetic system is being adopted by large numbers whose prejudices have given way, owing to the improved appearance which it works on the complexion. It produces beauty without cosmetics. It does not create beauty as quickly as putting on cosmetics, but if you have patience and persevere, the handsome appearance, ruddy countenance, and glow of health will be more pleasing and durable. It is an excellent preventative against wrinkles—those dreadful things which are more dreaded by many ladies than blotches and black-heads.

It is the only means in the world for dyspeptics by which a red, clear and pretty under-lip can be maintained. It is a common expression to hear, "keep a stiff upper lip," while it is vastly more important that we should keep a clear, healthy and red lower lip. The reason, or one of the reasons, why the use of proper diet and the hot water contribute so largely towards a clear and handsome

complexion is because it produces good digestion, sound sleep, a better disposition, with more rest and contentment of mind. The face becomes more plump and rosy, the skin looks soft and smooth, the eyes, which are dull and heavy under a *régimen* which causes indigestion, look like shining stars when the blood circulates in pure life-giving streams throughout the whole system, and to the outer cuticles of the face.

It affords sound sleep, which makes one more amicable towards the whole world. Starchy foods cause flatulence, with emotions to sleep, and yet sleep is far away, because of the fermentation going on in the intestines and digestive organs, so that a yawning by day and discomfort at night drive away the "sweet restorer, balmy sleep."

You may have indigestion and not know it. It takes various forms besides oppression and distress in the stomach. It affects the heart, the liver, the kidneys, the joints, the head, the limbs, the teeth, and other parts, causing trouble which is attributed to other sources, but actually is a result of improper diet. It is indigestion and mal-assimilation that bring the crow-feet about the eyes, the wrinkles on the face, black-heads, pimples, or sallow complexion.

The face is an excellent index of the state of one's physical being, and, from it, symptoms of disease can be detected almost before a person is aware that anything is the matter with him.

As a general rule the upper third of the face is altered in expression by the action of the brain, while the lower third of the face is acted upon by the organs contained in the abdominal or digestive

cavities. But as the brain is affected more or less by the digestive organs, these are primarily the cause of all our happiness or misery.

We lose much happiness by despising calm, quiet pleasures, and take an interest only in what excites and delights, as in some active, sensational event. How many prodigals there are in this respect. They spend their substance in riotous living, and are brought, by worthless trifles, to realize their true situation in the rags and penury of distress and wretchedness. If they come to themselves in time to arise and go to their father's house they may be saved, but will always be haunted by the sense of memory at the folly of that holiday trip which first was glittering with beauty, fine scenery, jovial companions, and a real good time, but ended in anxious thought, trouble, humiliation, with deep repentance and tears.

To all such this dietetic system is their father's house. Their reception will be most welcome. Plenty of good, substantial food will be supplied to them, just such as their system requires,—not the indigestible, starchy stuff, that will fill them with carbonic acid gas to bloat up and make a yeast pot of their intestines, but the well-roasted calf or animal food with parched corn. And this will be followed by music and dancing, to afford pleasure and indicate happiness, because the lost have been found, the dead are alive again. The elder brother may dissent and others laugh, but they are saved, and rejoice at the restoration of their birthright—good health and a happy life.

CHAPTER XII.

ON MASSAGE OR RUBBING.

HERE is a good deal of suspicion in the minds of many people in regard to massage, and no wonder, owing to the different systems advocated by various professors, or those claiming to be experts in the science. Its use is advocated for all sorts of diseases, without discrimination, which is a great mistake. It is certain that many practice it without knowledge, which brings the system oftentimes into disrepute. This is chiefly on account of the mystery thrown round the exercise by many of the chief pontiffs in the science, who differ from each other as widely as the poles.

The kind of massage which I shall advocate may be called very rude and primitive by the noted experts : but as they differ so widely from each other, it will not be a surprise if I differ somewhat from them.

I have much satisfaction in being assured, after many years of practice, that the system which is here recommended is safe and useful as an adjunct to the system of dietetics, or alone for those who indulge in the "varied and fanciful diet" of the age.

The massage which I recommend is similar to that which Hippocrates, who is called the first

physician, probably by way of eminence, among the early disciples of the healing art. He said: "A physician must be experienced in many things, but assuredly also in rubbing, for things that have the same name have not always the same effect. For rubbing can bind a joint that is too loose and loosen a joint that is too tight."

Galen, also, and others, practised this system in the far back ages in which they lived. In these last years of the nineteenth century, the learned experts have, by means of technical knowledge and experiments on frogs, rabbits, and other animals, served to place the whole question on such a scientific basis that bewilders the ordinary mind to such a degree that confidence is considerably shaken in the manipulation of a very useful practice.

There is the William Murrell system, the Weir Mitchell system, the Mezger system, the Von Mosengeil system, and higher or lesser lights, who have achieved notoriety in their practice to more or less extent, while they differ widely on many points of manipulation, but all agree that massage, properly administered, is an excellent therapeutic agent.

Dr. Playfair's system is the one I most approve of, but, strange to say, I had not heard of him nor his system for ten years after I began the practice. His definition of the term massage is a common-sense one, being "nothing more than a vicarious way of giving exercise to patients who cannot take it themselves."

This is the primary meaning of massage, and very fully expresses its utility. But I go farther on the same road and find by exploring the country,

that, in addition to the vicarious idea, some of the best results are obtained when the vicar is rector and curate all combined, and does the work himself.

The multitudes of people of sedentary habit, who are prevented from taking proper exercise, can by practising massage on themselves, by themselves in their own bedrooms, be enabled to enjoy good health to a degree they never thought of before.

Self-massage is the right and proper thing, provided the patient has enough strength to do it. This is a difficult point to settle in many cases. Some people imagine they are weaker than they are. If they would make an effort to rub themselves a little every day, it would soon work wonders for them. If they are really too weak, some one else must be delegated to do the work for them, and then it becomes a vicarious exercise ; because another does the work and receives double reward, — first the benefit of the exercise, and secondly the remuneration.

When I claim that the very best results from massage are reached by this self or delegated office, and for the purpose of exercise mainly, the lip of scorn may be turned up against it by professionals, who declare the idea a rude and primitive one. That is exactly what I claim for it, and maintain that there has never been any great improvement on it. Neither is it necessary for the masseur or massuese to spend two or three years in learning the art, except as study with mental application, and a course of lectures are always beneficial for learning the anatomy of the system, which is

certainly a necessary thing for every person to understand.

In expressing my views upon this subject, it is after many years of successful manipulation, two cases of which are recorded in former chapters of this work; and nearly every week testimonies to the same effect are reaching me. It is also satisfactory to me, because the same views are held and advocated by several eminent medical men, professors of therapeutics, and other scientific men of note, besides those mentioned.

In this, it may be said—

“ What is true is not new,
And what is new is not true.”

To glance at the way some of the new professionals use massage is most disgusting—I might say amusing, only, that when so much is at stake, there is nothing very amusing about it. Some of them besmear the body with oil, lard, or vaseline; one operator has discovered wool oil as a basis for an ointment for the purpose. Any of these unguents make a bad mess of things, and do less good than a hard dry rub.

Another one, who believed in the dry rub, but not by the hands alone, used wood or bone instruments, which were made to fit the various parts of the human frame. These tools were made to fit the knees, ankles, or other parts, which were swollen with rheumatism

Another one advocates the use of cannon balls. They are rolled over the body for some ten minutes every day, while the patient is impatiently stretched on his back during the performance.

Still another process is to introduce the patient into a room where machines are running at a high speed by means of electric or steam power. These machines have some ingenious devices which clutch and rub the patient on any part of the body desired. The design is to imitate the motion of the human hand, but save the labour, which the hands are intended to do.

All these contrivances are far from the system practised by the ancient Greeks and Romans, and by the present generation among the most enlightened Orientals, who are not afraid of work, as their diet and simple habits of life yield them such buoyant health and strength that they delight in the administration of relief to those in pain and distress.

The best form of massage is unquestionably that called "effleurage" which consists of slow, gentle strokes made with the palm of the hands, fingers, and thumb. When an eminent physician or any other person begins to advise how often the "slow, gentle strokes" are to be made by one hand and then the other, they get beyond their depth, and render themselves ridiculous. The one hundred and twenty times a minute up to three hundred and fifty times a minute afford a safe, and, for them, a wise margin.

The fact is, the rapidity of the strokes depends almost entirely upon the inclination and strength of the person operating. And to say the hands must move simultaneously and in opposite directions, is all nonsense. The main thing in rubbing is to influence all the tissues of the body in as uniform a manner as possible, and by friction set

the blood in motion, which flows more freely while the whole body is warmed up by the exercise, which is positively the great benefit of massage.

Every portion of the body requires to be toned up or developed to a higher pitch of muscular efficacy. This necessitates bringing into use every muscle of the body,—to set all tingling with excitement, so as to cause the tissues and cuticles of the skin, and flesh next to the skin, to flush and palpitate with the storm-like blizzard created by the friction of rubbing.

The skin is an organized membrane, full of minute pores, cells, blood vessels and nerves : it imbibes moisture or throws it off according to the state of the atmosphere and the temperature of the body. It also breathes, as do the lungs. All the internal organs sympathise with the skin. The process of rubbing the skin is an excellent one.

It stimulates the lungs to quicker and deeper respiration, and produces a free circulation of blood throughout the whole system. If good health is to be enjoyed for any length of time, this exercise is necessary. The labouring classes, so called, but which is a misnomer, are forced by the occupation they follow to exercise all their muscular tissues.

There is force in the way Tennyson puts the matter of adopting, or illustrative of the adoption, of every new device that comes along. He says :

“ Not clinging to some ancient saw,
Not mastered by some modern term,
Not swift, nor slow to change, but firm.”

The curse that came upon man at the fall necessitates labour, and people may as well make up their

minds at once to the fixed rule—"that there is no excellency without labour" in any department of life.

Among the excellencies dependent upon labour there is none of greater importance than **HEALTH**. If it is not called labour, but known by the simple name of exercise, it amounts to the same thing.

The Divine edict has gone forth, "six days shalt thou labour." This injunction has such a wide latitude that it includes everybody.

It is just as binding on the rich as the poor, and of as great significance as that other part of the Decalogue which says in regard to the seventh day, "In it thou shalt do no manner of work." Those who expect to enjoy good health for any length of time by breaking this commandment, in either one part or the other, will certainly be disappointed. There is no royal road to any excellence but by the way of labour. The only real rest a person enjoys, in the real meaning of the term rest, is after fatigue.

The sound sleep, good appetite, and general exuberance of health come after exercise. One-seventh of the week is for rest and six-sevenths for labour. If the labour is of a sedentary character then there must be some means of stimulating the whole system into action, so as to produce the same effects on the muscles, tissues, and all the organs of the body in a similar manner to the way they are exercised by the people who, through manual labour, bring them into play.

There is no way that I know of that is so easy, so beneficial, and so conveniently adapted to our surroundings as that of massage. It may serve as

an adjunct to other means of exercise, or may serve as the only means. The question is often asked, What is the most generally advantageous form of exercise? My answer is, massage.

I do not wish, in any sense, to ignore the manly outdoor exercises,—sports, pedestrian or equestrian, the cycle, golf, tennis, bowling, croquet, or the indoor billiards, gymnastics, nor other muscular exercises designed to bring into use every muscle and tissue of the body in a manner that affords pleasure and attractive associations. These are all excellent if they are not abused by overdoing, as is often the case, owing to the excitement, competition, and general ambition to excel in them by persons who do not gauge their strength of endurance by rules of prudence or laws of physical ability.

But there are the tens of thousands who do not engage in these sports. They are domiciled at home, and snatch here and there a little exercise, but not half enough to produce even a moderate amount of the twenty-four ounces of perspiration which should exude from the body every twenty-four hours by a person in good health. For them, there is no exercise nor exerciser that can supersede the old and excellent persuader, known in these days by the name of massage.

It is suitable for winter or summer and all sorts of weather. There is little danger of overdoing it. It will relieve many ailments which other violent exercises create. It will cure many diseases which other forms of exercise have created, by over indulgence in them.

Deafness, for instance, as tested by the influence of bicycle riding and massage. Twenty-four cycle riders, who had ridden thirty-two miles in two hours and a quarter were examined with reference to their hearing and it was found in nearly every case to be defective. After two hours' rest the hearing had become normal in most of them.

In a case under my own practice, where the telephone could not be used by the right ear, after three months' practice of massage the patient unexpectedly found himself using the phone with the right ear and was surprised to find his hearing perfect. For ten years previously he had not used the phone with the right ear.

The following will explain, as briefly as possible, the system of massage which I have found successful in all cases, not only as affording exercise but as a valuable therapeutic agent.

It must not be considered by anyone that an evil which has existed for a long time can be removed immediately. One of the most prevailing errors among certain classes is to expect immediate change will yield immediate relief. Massage is not so quick in its results as dietetics, for what is taken into the mouth is like material put to a machine, which, the moment it enters, is changed, and affects the machine as well as the material.

Now to the work ; begin it as soon as you arise from your bed in the morning. Turn your bare skin to the atmosphere of the room by removing your night-dress down to the waist. If you shiver a moment and find yourself getting cold by the change, it is clear proof that you are very tender

indeed, and no one needs massage more than you do.

To prevent the shivers, take a good-sized friction towel and throw it over your shoulders at once, do it very quickly, it is well to have it ready at hand; then rub yourself with the towel until you get up a little circulation which will warm your whole body.

Then throw off the towel, and with the palm of the right hand and fingers rub your left arm as quickly as you can from the shoulder down to the wrist ten times. In doing so pass your right hand down the front of the left arm and up on the back part of the left arm. Do this ten times.

Then with the left hand in the same way rub the right arm ten times. At once, and as quickly as your strength will admit, use your right hand palm over your throat and left side of the neck up to the ear ten times. Then, with your left hand, rub the right side of your throat and neck up to the ear ten times.

You will now begin to feel warm and perhaps out of breath a little. If possible, without fatiguing yourself too much, use both hands now at once by rubbing under the arms and down each side of your body to the hips ten times. Then throw your arms back and rub your back all you can down over the kidneys. In doing this, use the backs of your hands.

Take the friction towel over your right shoulder, one end with the right hand behind your back, the other in your left, and rub between your shoulders and over the spine, ten times over one shoulder and ten times over the other.

This will probably be enough for the first exercise, unless you are strong enough to bear more exertion ; if so, rub the nape of your neck thoroughly with first one hand and then the other, and about the ears. It may be that you will now feel so warm that the atmosphere of a cold bedroom will not be felt on your bare body, and you can go on.

If so, strip your legs and run both hands at once sharply and with pressure down the front of your legs from thighs to feet and up on the back parts of the legs ten times. This sets the whole machinery of the outside membranes, tissues, and arteries in motion, and opens the pores of the skin with great advantage to the circulation and perspiration.

It is prudent now to put on your clothes as quickly as you can, but before putting on your stockings, sit down and rub the soles of your feet, first one foot and then the other with the palms of your hands, first one hand and then the other. This is very important, as the nerves of the whole system centre in the soles of the feet.

If you cannot do all this at one operation at starting the exercise of massage, it is advisable to have someone to assist you, or do less of it at once, until you are able in a few days to do it all yourself. In doing only part of the exercise, which consists of ten times, rubbing each part at once, do less, but whatever you omit do not miss the soles of the feet nor nape of the neck.

If you wish to be perpetually free from colds and headache, take this exercise every night and morning for from five to ten minutes, until you are able to keep it up longer.

It is not advisable to begin the exercise when fatigued, nor when in a perspiration. If you operate on yourself at night in the way directed, and find it followed by a nice, free perspiration after you cover up in bed, it is an excellent sign of benefit.

A young lady of my acquaintance had no perceptible perspiration for some years, even in the hottest weather, until she began cycle riding, and then she perspired so freely that she would catch cold if not very careful ; but I have known plenty of people who did not perspire until they began massage, which, being an indoor exercise, avoids the danger of catching cold, especially as the rubbing can cease when the skin becomes too moist, and should cease, and the clothes put on at once, when in a few minutes the body comes to its normal temperature.

The exposure of the bare skin to a colder temperature is one preventative against taking cold. The exercise, in which all the muscles of the body are brought into play, causes the circulation of the blood to flow more freely. It tones up the whole system to a standard of vitality that enables it to ward off "colds," and to endure more of the fatigues and strains of life, similarly to those which are constantly met with by persons whose occupation is one of hard manual labour.

With proper diet, and an inward bath of hot water several times a day, together with an ablution two or three times a week in the bath tub, and massage according to these directions, a person can live and be comparatively free from disease, and enjoy as long and happy a life as is possible in this world.

CHAPTER XIII.

DIETETICS AND MASSAGE AS COMBINED
THERAPEUTIC AGENTS.

THE human body has been likened to a furnace which keeps in blast three score years and ten, some more, but a great many less. When the fire slackens, life declines: when it goes out, it is dead.

By experiments and observation a certain fact has been established which shows that the amount of combustion increases up to about the thirtieth year, remains stationary to about forty-five, and then diminishes. From the age of forty-five, then, the machinery ceases to do proper work in one part or another, and physicians are called in to repair or stop the creaking and jerking.

But why is this? Why should a machine so "fearfully and wonderfully made," with the design of continuance in good, sound, effective work, break down or get out of repair fifteen, twenty, or twenty-five years before its time of old age? The reason is quite clear. The machine has been improperly handled; it has been run at too high a speed, or too low a speed, or been neglected when a bolt became loose or oil was required, rest demanded, or something connected with its physical condition was not understood.

Men break down between forty-five and sixty because they have been imprudent. They may disclaim against follies and excesses in others all they choose, but if they break down themselves they are guilty, or have been guilty, of follies and excesses. The back aches, joints stiffen, indigestion, diabetes, neuralgia, rheumatism, or more deadly pneumonia, peritonitis, appendicitis, or inflammation of other parts of the body, are all brought about by a low state of vitality at the very period in life when the man should be of most value to society, to his family, and the world. It was never intended that we should begin before seventy or eighty years of age to consider ourselves belonging to the "back number," and unbuckle our armour with a feeling that our effective days are over.

From the age of forty-five, though the hair may be frosted, and a few wrinkles are seen on the face, they are no signs of finished work, but symbols of trained fitness for additional and still more advantageous service. From this age man is better able to consider, to judge, and decide more deliberately than in younger years, when mistakes of impulse and passion were liable to wreck the less wisely conducted plans.

I remember my father commencing a new industry on his sixtieth birthday, which, at the time, was a serious cause of offence to the whole family, in consequence of the toil and responsibility which it demanded at his age. In a few years after, when great success attended his work, he pointed with considerable satisfaction to it, and did not forget to refer to the opposition he met with at its beginning.

He lived twenty-two years to enjoy the satisfaction of the work he began at sixty.

How strange it is, yet how true : "It is never too late to mend." But how much better the world would be if the youth of the land were educated in the principles of dietetics and hygiene. The following simple verse, gathered somewhere in my reading, is to the point, and should not be missed :

"I gave my boy a palace,
And a kingdom to control :
The palace was his body,
The kingdom was his soul."

Many people live entirely in the future. They are always looking forward to a bright future which never comes, because they enshroud themselves by the darkness of a lantern which sheds no light, except on the future, which is always in the distance.

The boy requires to be taught that he is in possession of a palace and a kingdom, and that certain care must be exercised, and laws kept sacred, if he would hold possession and rule as king for any length of time. He must understand that he has enemies within and about his palace, and sometimes they appear as angels of light and pleasure, while they are serpents concealed in a bed of roses.

Take care of the poisonous influences that may be exerted. They may be in riches ; if so, take this sage advice : " Though you may yourself abound in treasure, teach your son some handicraft ; for a heavy purse of gold or silver may run to waste, but the purse of the artisan's industry can never get empty."

This brings me to the fundamental principle in

acquiring and maintaining health,—that is, exercise or work. The old system of teaching some handicraft was excellent. Even women,—many of whom are ambitious to become rulers and occupy positions for which men were designed—if they would exercise themselves in some handicraft suitable to their physical constitution, the world would be better, and they themselves would be better.

Ten thousand of them are required to spread and teach the principles of dietetics, massage and hygiene. Good remuneration may be secured to those who have need of it, by which to support themselves, while those of private means, can make their lives immensely useful by gratuitous service.

There are odours of delightful perfume still fresh in the atmosphere of this world, caused by the daughters of old and wealthy families, who have taken a deeper interest in doing good to their fellow creatures, than in the passing gaieties of social life to which they were introduced when presented at court, or in their place in society. Florence Nightingale is an example. She and her sister showed much greater interest in the hospitals and charitable institutions of London, than in the pleasures of the society of the first rank into which they were introduced.

They soon caused a revolution in the manner of nursing, not only in the hospitals of this country, but throughout the world. A strong desire and fixed purpose will greatly assist any person who wishes to do good. Here is a field open and ripe unto the harvest.

And they are not to do much work either, but

assist their patients in the work of massage and direct them in dietetics.

The great success which attended the system of massage practiced by Dr. John Grosvenor, of Oxford, nearly 100 years ago was that he always insisted that his patients should "work with him." "Your own constant exertions are necessary as well as mine," he would say, and impress upon their minds. He employed a large staff to assist in carrying out his instructions.

They were like ministering angels, who set to work on the arms, back, and legs, and soon rubbed away the pain and disease from the patients they were sent to assist at first, then help them to help themselves, and finally instruct them in the way they should live in future to enjoy good health and freedom from aches and pain. The results were simply wonderful, and people came from all parts of the world to Dr. Grosvenor for treatment.

The ladies required to act as masseuse in even the simplest cases must have instruction. These instructions can soon be acquired by intelligent and fairly educated women. The work is not difficult nor too fatiguing for anyone of ordinary health and strength. The practice is of great benefit to those who are weak, while the study and practice combined, reveal a new world to their astonished mental vision.

The satisfaction of being usefully employed and seeing those who have been martyrs among their own sex to periodical distress and pain enjoy, through their instrumentality, freedom from irregularities and consequent cramps, is of itself good remuneration,

Massage, together with the dietetics recommended, does marvellous things for suffering females, who, if they carry out these directions, will have no return of the trouble, because nature works its own remedy wherever it has a chance.

It is absolutely cruel for physicians to give hypodermic injections of morphine in cases of severe pain which so many endure at the monthly disturbances. There should be precaution taken by attention to diet, and massage of the abdomen and pelvis, long before the disturbance is expected. If this were properly done the best results follow.

Again, what satisfaction is experienced in curing the inebriate and other slaves of evil habits, who are not only sufferers themselves, but a distress to their friends. Massage, as accessory to dietetics, will cure the drunkard in most cases by removing imperceptibly from his system the poisonous germs of alcohol, which have diseased him mentally and physically to the very brain and marrow.

The worst form of intoxication, perhaps, in existence is that of morphine. It is very seductive, and here too much blame cannot be heaped upon medical men who are so fond of giving and teaching their patients to take hypodermic injections to allay pain.

What will be the future of society if this practice becomes more common? It is a curse of the worst kind of drunkenness. It pervades and enslaves people in all classes of life in country villages, larger towns, and in great cities, and is extending its hellish influence, like bad whiskey and rum.

When people cannot endure the pain which their

own follies and excesses, or their ignorance of the laws of Nature, have brought upon them, but have to take hypodermic injections, it is about time they came under the influence of some trained, kind-hearted and benevolent person, who will be a ministering angel, and lead them into "the more excellent way" of relief.

There are many, many cases where the arms and legs of persons are covered with the marks of the needle, from these barbarous injections, so that no massage can rub them out; but the effects may, to a great extent, be worked off gradually by dietetics and massage.

In cases such as these, there is great satisfaction at bringing about a cure, and a new *régimen* will secure a new life. Those who consider themselves wiser and better able to prescribe a remedy, or follow what some "friend" directs in the way of "self dosing," instead of what I am writing, may obtain relief and be cured; but I predict if they continue long in the practice of hypodermic injections to allay pain, or in alcoholic liquors to relieve trouble, they will soon need the undertaker and an inquest.

Massage is also of great benefit in kidney troubles. The directions given towards the end of the last chapter were only preliminary. You will have noticed, I trust, that *pressure* is there recommended in only one instance—that of rubbing the legs.

In cases, however, of kidney disease, constipation, indigestion, diabetes, or kindred troubles caused by improper diet, or excesses in anything or

any other cause almost, besides the practice already introduced, which is to be continued, there must be, in addition to the prescribed diet, an increase of pressure in rubbing the abdomen and pelvis, but not too much at first.

The rubbing must also extend over the kidneys and gall bladder by the palms of the hands; also the spine from the nape of the neck down to the bottom of the spine. There must be care exercised in this, in case of gall stones, which too severe a rubbing might do mischief to, while a moderate, brisk, and frequent friction of the parts will greatly assist.

To continue this operation for a few days, should increase the flow of urine considerably. In the start, the change of diet alone, or when combined with massage, there may be some strange freaks experienced with the excretions from the bowels and bladder, but they only prove that the system of treatment is ridding the clogged-up body, and no alarm need be taken at such freaks.

The massage of the abdomen and pelvis, combined with the daily exercise of the whole body as at first directed, has been followed by easier and more natural monthly visits in cases of female trouble. The secret of all this is, that dietetics and massage promote a general improvement in health by the action, exercise, and improved circulation which the combined treatment produces. They assist nutrition, digestion, assimilation, and tone up the whole system to a higher standard of vitality.

Rubbing the pelvis is of great value to the membranes, when any trouble from the urethra is experienced.

In throat troubles, the same pressure, or even greater pressure, is to be applied. First with one hand and then the other, rub the throat and nape of the neck, about the ears and over the lungs, both in front and between the shoulders, with a good friction towel, so as to reach the tissues at the back as well as the front of the body.

Clergyman's sore throat would soon disappear if this system was followed in its entirety. Under its influence there would be an improvement in general health, a much better appetite, with increased brain power, vigour and stamina for hard work, whether mental or physical.

For a cough, this remedy is better than all the cough mixtures ever prescribed. If physicians would but study the pathology of a cough, they would soon abandon other preparations for this more natural treatment.

A cough is not a disease, but a symptom. It is Nature's way of indicating that there exists somewhere an irritation in or about the respiratory organs, stomach, or intestines. It is like the bark of a faithful watch dog, giving warning of approaching danger. To silence this bark would be folly, so by drugging a cough is equally foolish, yet this is the very thing most people do.

The much puffed-up cough mixtures are used instead of a safer, more common-sense and much more effectual remedy, which is at hand everywhere and at all times. Even in sudden, wearing and racking coughs, the most useful cough remedy is hot water. It does not disorder the digestion and spoil the appetite, but rather improves both.

Take water, almost boiling, or as hot as you can sip, and keep on sipping when the paroxysms come on. This promotes the secretions, and moistens the irritated surfaces. It also promotes expectoration, and so gives relief even in cases of consumption. Add to this remedy the dietetics and massage, and the cause of the cough—which is generally from a cold, and the cause of a cold which is invariably from over-feeding or a low state of vitality, preceded by bad circulation and impure blood—is removed; the equilibrium is established, which is so necessary; the digestive organs, respiratory organs, and membranes do their part without obstruction, until a change is effected; the dry cough becomes easier; irritation is relieved, and the whole cause of the trouble gradually disappears.

Scores and hundreds of cases are recorded of persons who have cured themselves of consumption by changes in diet, in air, by massage and other natural, common-sense and simple means. The prevention, however, is wiser. This can best be secured by proper care and attention to the habits of diet and rubbing.

The old Highland form of chest rubbing in Scotland has done good service in arresting the progress of this disease. It is very similar to what I have already given.

In cases of boils and pimples, this system is highly recommended. Within the past week, a gentleman spoke to me concerning boils on the back of his neck, which had troubled him periodically for several years. I recommended a moderate use of massage, as one of the boils was appearing at

the time. In a week after he began the rubbing, he informed me that in three days the one boil had disappeared entirely, and no signs of any more. He felt much better in health, and should continue the practice as a means of opening the pores of the skin, and distributing any malformations of lymph in the vessels which carry it to all parts of the body.

There can scarcely exist any such things on the surface of the skin as boils and pimples where this system is regularly carried out. The muscle fibre is so stimulated, the tissues and cuticles are so mechanically affected, and the arteries so agitated by the friction and exercise, that it dissolves and scatters the gathering lymph which has been retarded by improper circulation, that it is obliged to move on, and is driven into the proper channels of secretion and excretion.

It is likewise useful in cases of obesity, where, from sedentary habits, or other causes, people become so corpulent that their figure is not as symmetrical as the rules of delicate fashion suggest. This is not the worst feature of corpulence. It may be disagreeable, it may annoy the eyes of the fastidious admirer of a fine figure, but the more serious feature of obesity is that it indicates a tendency to a plethoric and diseased condition of the system.

It has been supposed that fat people are the most healthy. To a certain extent this is the case; but when fat people "take cold," are fatigued, and have headache and other disturbances, which lean people have as well, it is time for them to consider

that a little more fat is a dangerous thing, as it may distend the blood vessels, enlarge the liver, overwork the kidneys, shorten the breath, produce some contractions of the respiratory organs, or a plethoric condition, which will make life unendurable.

Then a physician is called in, for, of course, the fat person is weak and exhausted. Fat is not only a useless thing in the body, but a dangerous thing. Those who so much desire to be fat had better study the table of strength and weight given in another part of this work.

Massage and dietetics are the only sure remedy. Those who are spending guineas by the hundred for specifics to reduce their weight and bring themselves into a more symmetrical shape, had better adopt the simple mode of treatment, which will make them sound in body and mind and of a natural shape and size. It will in the near future, it is hoped, be the work of physicians to remove the causes of disease and all obstacles to the working of the healing forces of Nature, and point out the road leading to perpetual good health.

CHAPTER XIV.

THE PHYSIOLOGY OF HEALTH.

MANY a good watch that is wound up for twenty-four hours stops in ten or fifteen, while the fault is not with the maker, but the carrier. The chances of life are calculated very closely by life insurance companies upon estimates from family history and conditions of the life previous to a certain age, as well as the state of health at the time the insurance is applied for. But many people whose progenitors were long-lived, have had a short lease of life themselves, while others have upset the actuaries' calculations, and surprised the insurance companies, by the extension of their lives to a good old age.

The heart, lungs, and digestive organs may be strengthened and enlarged so as to overcome the tendencies to disease of these vital parts of the system, to such an extent that those whose heredity and previous health indicated a short life, have actually lived longer than those who were distinguished by much more favourable circumstances.

Shakespeare, who is an authority in all circumstances and events of life, by the apparent universal knowledge he seemed to possess of every thing in nature, physic, art, philosophy, science and mysteries, and whose general touch gave them a tinge of passing beauty, says, in *Coriolanus* :—

Menenius.—

“There was a time when all the body’s members
Rebell’d against the belly ; thus accus’d it:—
That only like a gulf it did remain
I’ the midst o’ the body, idle and unactive,
Still cupboarding the viand, never bearing
Like labour with the rest ; where the other instruments
Did see, and hear, devise, instruct, walk, feel,
And, mutually participate, did minister
Unto the appetite and affection common
Of the whole body.” The belly answered—

Citizen.—

“ Well, sir, what answer made the belly ? ”

Men.—

“ Sir, I shall tell you.—With a kind of smile,
Which ne’er came from the lungs, but even thus,
(For, look you, I may make the belly smile,
As well as speak,) it tauntingly replied
To the discontented members, the mutinous parts
That envied his receipt ; even so most fitly
As you malign our Senators, for that
They are not such as you.”

Cit.—

“ Your belly’s answer : What !

The kingly crowned head, the vigilant eye,
The counsellor heart, the arm our soldier,
Our steed the leg, the tongue our trumpeter,
With other muniments and petty helps
In this our fabric, if that they—

Men.—

“ What then ? —

‘Fore me, this fellow speaks !—what then ? what
then ? ”

Cit.—

“ Should by the cormorant belly be restrain’d,
Who is the sink o’ the body,—”

Men.—

“ Well, what then ? ”

Cit.—

“ The former agents, if they did complain,
What could the belly answer ? ”

Men.—

“ I will tell you :
If you'll bestow a small (of what you have little)
Patience awhile, you'll hear the belly's answer.”

Cit.—

“ You're long about it.”

Men.—

“ Note me this good friend ;
Your most grave belly was deliberate,
Not rash like his accusers, and thus answer'd.
'True is it, my incorporate friends,' quoth he,
'That I receive the general food at first,
Which you do live upon : and fit it is ;
Because I am the store house, and the shop
Of the whole body : but if you do remember,
I send it through the rivers of your blood,
Even to the court, the heart, to the seat o' the brain ;
And, through the cranks and offices of man,
The strongest nerves, and small inferior veins,
From me receive that natural competency
Whereby they live : and though that all at once,
You, my good friends,” (this says the belly,) mark
me,—”

Cit.—

“ Ay, sir ; well, well.”

Men.—

“ Though all at once cannot
See what I do deliver out to each ;
Yet I can make my audit up, that all
From me do back receive the flour of all,
And leave me but the bran.' What say you to it ? ”

Shakespeare's reference to the practice of blood-letting, as a remedy in cases of high temperature

and certain diseases which prevailed, is mentioned particularly in Henry IV. :

“We are all diseased :

And with our surfeiting and wanton hours
Have brought ourselves into a burning fever,
And we must bleed for it.”

He makes mention frequently of rheumatism, fevers, leprosy, small-pox, apoplexy, consumption, colic, hysteria, jaundice, sciatica, and epilepsy, and in several plays refers to rubbing as practiced, such as “rub the arm” to make strength stronger.

In cases where some were injudicious in this practice, he speaks of “too much rubbing.” In one place he refers to it by saying, “You rub the sore when you should bring a plaster.”

In Othello, there is “rub the temples,” in a case of epilepsy. Again, “For your health and your digestion rub the vein of him,” even when “death’s tokens cry ‘no recovery.’”

He often mentions rubbing the elbow and the brows, and speaks of “strong arms, strong joints, true soldiers,” and says the world is “full of rubs.” “Ay : there’s the rub.”

In fact the system of dietetics and massage are noticed by this great writer, whose physiological and pathological views are expressed in such a manner as prove his acquaintance with *materia medica* and general therapeutics. He does not lose sight of the ancient and renowned medical celebrities, such as Galen, Hippocrates, Æsculapius and others. In reference to dietetics, he says :

“Things sweet to taste, prove in digestion sour,”
and again :

“A sick man’s appetite, who desires most that
Which would increase his evil.”

As an index of the face, which all practical people read so clearly, he says of acidity, or the fermentation of the food in the stomach, which produces heart-burn, gas, and leads to so many diseases :

“How tartly that gentleman looks !
I never can see him, but I am heart-burned an hour
after.”

To refer to just one more of his wise sayings, which indicate his knowledge of the laws of health, and what man can do for himself in the way of cure, he says :

“Our remedies oft in ourselves do lie,
Which we ascribe to Heaven.”

Another really important matter which I have enforced with some little earnestness, but, not having given it sufficient attention, bring it up again with a Shakesperian leverage, in order to impress it more strongly on the minds of interested readers. It is the benefit of laughter and good nature on health. Our emotions are the playthings of cordial surroundings, and we can cultivate them as we do tomatoes. The sunshine of mirth will lighten many a heavy burden.

To quote only a few sentences from the King of Poets, he says, referring to some of his characters :

“From the crown of his head to the sole of his foot, he is all mirth. He has a heart as sound as a bell.”

“A light heart lives long.”

“Mirth is in his face.”

There is always hopeful encouragement in the

torchlight of brightness, even when shadows fall around our pathway, or disease grasps us in its ruthless arms.

“But know, I think, and think I know most sure,
My art is not past power, nor you past cure.”

“What is infirm from your sound parts shall fly ;
Health shall live free, and sickness freely die.”

Much of the emaciation, haggard appearance, troubled expression, pale countenance, crow-foot eyes, wrinkled face, throbbing temples, loss of appetite, weak limbs, careworn looks, sourness of disposition, censorious spirit and similar unsweetness of manner, which wear upon the body and mind so as to set upon edge all surrounding attendants, as well as social companions, arise frequently from the absence of mirth, pleasure and gladness of heart.

Being “careful for nothing” is a dogma of the wisest teaching. Being “careful and troubled about many things” in domestic, social and business life, produces not only a heavy heart but a troubled countenance, which wears upon the health, producing a sluggish circulation in the arteries, tissues, and membranes of the whole body. This should be avoided—can be cured—and a bright, cheerful, good natured disposition grafted in, upon which better and more wholesome fruit will grow.

Shakespeare, when he had made a fortune that secured him an income of three hundred pounds a year—a competency then equal to a thousand a year now,—retired from London to his quiet home

at Stratford. He made the mistake of his life in doing so.

Many business men have left their active life, by which all their faculties were kept in exercise, and retired in middle life to rest and enjoy the fruit of their accumulations, and in a dozen years or less, died ;—as did Shakespeare, just at a period when they were best fitted to be of greater use in the world.

The habits of this money grabbing, money saving, and money spending age are seriously censured by most philanthropists ; but when the grabbing exercise of it is over, the exercise of the other two branches of the habit soon cease as well. There are comparatively few people who have the ability to amass wealth, and those who have, had better stick to it, and do all the good they can in the world with the money they make.

In the philosophy of health there is, to those who are interested, much attention required to little things. How are we to be healthy ? That is the important question I am endeavouring to answer. A fruitful and beautiful garden must have the weeds and grass kept down carefully, or the good seed as it springs up will soon be choked. Even when the flowers appear, and the fruit begins to ripen, the gardener is obliged to use diligence in cutting away in one case, propping up in another, watering, shading, preventing the havoc of insects, and by general vigilance secures, in the end, the fruits of his labour. So in the matter of health. The emotions of the mind, day by day—as anger, grief, envy, jealousy, hatred, discontent, melancholy, and all uncharitableness—are promoters of discord, and

have a tendency to destroy the vital energies of our physical constitution. These must be kept down.

The best way to do it is to cultivate a cheerful spirit with contentment of mind, and to meet the every-day difficulties with an heroic, determined purpose; to overcome them by some ingenious tact, which will succeed a thousand times better than worry. A soft answer turns away wrath.

There is an acid which lies dormant in the dough until the heat penetrates, and then it bubbles forth and spreads evenly to every part of the cake and oozes out of the little pores, leaving the baked product looking pleasant to the eye, palatable and easy of digestion.

So a word fitly spoken, an act wisely performed at the right time, will often do wonders in making a change that sends the sunshine of happiness and health beaming and radiating throughout the whole environment that before was cold, dark, damp, and distressing. What a change!

A little deliberation and forethought will often remove difficulties, while a hasty, angry, and injudicious word or act will create a storm that may rage into a very hurricane of disaster.

Health is the outcome of moderation. Excess or extremes are dangerous. We may go to excess in the matter of rest as well as in labour; in fasting or abstinence as well as in over-eating; in cautious watchfulness as well as in exposure; in running to a physician as well as in not consulting him at all; in taking every kind of prescribed remedy as well as not taking any.

Invalids are apt to bring on serious complications

in their existing troubles by too much indulgence in food, exercise, or some radical change, under the impression that they are doing something useful because a "friend" recommended it, or someone else did it, who was benefitted by the innovation.

One of the serious causes of an unhealthy body is constipation, and the cause of constipation is wrong diet. Enough has surely been said on this point. But it is such a prevailing habit, and so insidious in its progress, that its pernicious effects are liable to escape that attention to the importance of a "daily call" which nature demands, to evacuate the bowels, that too much cannot be said about it.

If the fecal matter, in its state of decomposition, is not removed from the system, numerous complications may be soon looked for. They may take the form of congestion, abscesses, inflammations, or some form of organic trouble, which may become chronic and serious. People who resort to purgatives for constipation generally find temporary relief, but it is soon followed by a re-action which only tends to confirm the disease, or rather the habits which result in the disease.

The use of enemas are no better in their permanent results. It is a vile practice to inject hot water or other liquids, but one that prevails to a large extent ; and in America, it is said, a person has reaped a fortune by a small, secret pamphlet sold at a price approaching a guinea, which simply gives directions in the manner of using a hot water enema.

Tell it not in Gath ! Publish it not in the streets of Askelon ! No ; but agents, secretly bound, sell

the recipe, and hundreds of the agents are men styled "Ministers," whose education and training, if they have any, should lead them to the law of Moses and the teachings of the Cross for the practice of dietetics, hygiene, and massage, without resorting to an unnatural, dangerous, and vile mode of giving temporary relief.

I have already referred to the use of water, and hot water, too, as a remedy in connection with proper diet for the cure of constipation. When we consider, that solid and dry as our bodies appear, water constitutes more than three-fourths of their bulk, and all the functions of life are carried on, as it were, by hydrological power or influence, we find that our bodies must have water, and a methodical use of it as a beverage, even in the absence of thirst, will certainly augment the chances of health and longevity.

When water is taken into the stomach, its natural receptacle, it soon begins to pass out through the tissues into the circulation, and liquifies the effete solids, so that they may gradually float away to the excretory organs to be cast out.

Water between meals, and hot water, or water at the temperature of the body, is harmless, yet a most efficient means to accelerate the speed of normal action without causing a purge; it cooperates with and assists digestion, stimulates, strengthens and tones up the system to the normal standard of vitality, and conduces to a resistance by all the human machinery with such a force that "colds" and other ailments which are so prevalent and troublesome are warded off.

Health—good health—strength and long life depend on air, exercise, diet, temperature, purity, moderation, and cheerfulness. If these means are not understood and practiced, there will be a constant deterioration among the people. A consumptive, scrofulous, cancerous, gouty, and dyspeptic parentage must yield a constantly increasing measure of ill-health among the offspring. The law is an irrevocable one.

The parents entail upon their children debility or strength, as well as poverty or riches. Will you bestow the curse or the blessing? Or will you eat, drink, and be merry with wine and gluttony for the time being, regardless of your own after condition and that of your children? The responsibility is great.

To resort to drugs is simply a slow process of suicide. In the case of constipation, eminent medical men have for years endeavoured to produce a tonic or remedy for certain forms of indigestion which would not cause constipation. Tens of thousands of nostrums have been launched forth as tonics to give relief, all of which tend, sooner or later, to constipate the bowels, while proper diet and drink—the natural remedy—is ignored, although they are the great sovereign remedies of all. This natural remedy is the miracle working one, while it stands as a stumbling block in the way of numerous professors of therapeutics.

The fearful scourge of dyspepsia, which carries off more victims than the ravages of war, famine, and pestilence among the adult population, can only be cured by dietetics and massage, no matter

what form the dyspepsia takes, whether it affects the salivary glands, the stomach, intestines, pancrea, liver, kidneys, or other parts—for it does affect all of them, more or less, and is the result of the high pressure style of living, or of eating improper food, such as white bread and starchy vegetables, the only permanent cure for which is in a change of diet.

There is no other remedy on earth which will so effectually assist nature to produce a pure, healthy circulation, and give a stimulus to the organs of digestion. To absorb the nutriment, to assimilate it and furnish a rich, healthy blood to flow throughout the entire body, even to the ends of the fingers and tips of the ears, there is nothing in comparison to this natural remedy.

A change of air, a rest from business, a change of associations, or simply a change of mind from depression to cheerfulness, combined with a change of diet, will greatly assist the healthy flow of nutritive fluid throughout the system. But the main thing is the pabulum that re-vitalizes the blood, and sends it through the tissues in clear, healthy streams, which convey tone and strength to every part.

Rheumatism and gout, two prevalent diseases, are due to the retention of uric acid and lactic acid in the blood. Why are these poisonous acids retained in the blood? Because of defective excretion. You may take all the tonics in the world, baths, massage, and other remedies, but unless the blood is purified first by attention to the digestion and assimilation of the food, so as to

furnish the tissues with proper nutriment, you can never drive away these dreadful maladies.

Prick the finger and draw a drop of blood from the rheumatic and place it under the microscope. Then change your diet to what is recommended in these pages, and drink hot water as directed, strictly following this up for a week. After this, examine the blood by drawing a drop from the finger again, and see the larger number of red blood-cells upon which health depends, and as you keep up the treatment and make the examinations from day to day, the increase of pure red blood-cells will be so apparent that, whether you feel better or not, all at once you will be convinced that a change has set in which, if followed up, will result in a complete renovation, and you will get well.

But if you are told, or imagine that you must take so much of this or that kind of food, drinks and stimulants, to keep up your strength and tone up your system, then you feed the disease and remain a sufferer. Which will you do? If you have tried the one, why not try the other? Because, you say, your physician does not recommend it.

Doctors differ, and so do ordinary people; so do diseases. You cannot suffer on the menu which I prescribe, and shall detail more fully before the last chapter closes. You need not go hungry, but have all the nutriment that is necessary to supply the wastes of the system; and, better yet, a food that will from the first please and satisfy the digestion, assimilation, the tissues and all the organs of the body, and finally will satisfy the palate better than

all the so-called dainties and rich dishes in the whole category of the most refined arts of cookery.

Pabulum : Let this be your motto, if a martyr to disease, and drink hot water between meals, but nothing with your meals—not even a sip,—for if you cannot eat without sipping, then you had better not eat at all. Wait ; the salivary glands will soon provide a supply of proper moisture by which the food can be eaten without the addition of sips of any kind. You will soon be rewarded by an appetite, digestion, and assimilation that will convince you of its sovereign benefits.

CHAPTER XV.

GENERAL ANALYSIS OF THE SUBJECT.

THE most advanced physiologists of the present day cannot reasonably complain of the system explained and enforced in the preceding chapters. I have consulted hundreds of physicians, many of them leading practitioners; some of them renowned for their skill.

I have visited many of the famous sanitariums, mineral water establishments, health resorts, and hydros, both in England and on the Continent of Europe, in Canada, and the United States. I have witnessed thousands of sufferers, whose exertions to get well caused them to spend large sums of money and much valuable time in various sorts of treatment, in which strange experiences have been recorded.

Here and there a remarkable cure has been witnessed, but the failure to cure completely and permanently is the exception, unless the system of dietetics has been a leading feature in the treatment at the time and in after life. The reasons are very obvious.

In showing them still more clearly, and to impress them more indelibly on the mind, I shall now direct special attention to what I shall call, in order to make it plain, the machinery of digestion. Before

we take a physiological view of the machine itself, let us glance at the preparation of the material to feed into this wonderful piece of mechanism.

The first performance is cooking. Man is called a cooking animal, and in this respect, is different to all others. The next act of preparation is done in the mouth by means of the teeth, which is called mastication. The biting or grinding is done by the lower jaw, which, as already shown, has a pressure of several hundred pounds, so as to break up hard food in a similar manner to a pair of mill stones, one of which is stationary while the other revolves.

This breaks up the food so that the digestive juices can penetrate every particle. The importance of thorough chewing has already been noticed. There is considerable exercise or labour in doing this. When it is improperly done, by persons bolting their food in a great hurry and sending it on to the digestive machine, the salivary juices cannot mix with it as they should, and the result is some damage to the finer parts of the intricate machinery.

This may be likened to feeding a machine for grinding corn. If the corn is not properly prepared, the machine cannot do its work satisfactorily, but is in danger of breaking down. Mastication is designed to produce the first act of digestion by changing the starch into dextrine, glucose or grape sugar. This is done by the powerful constituents possessed by the saliva, such as alkaline salts and ptyalin.

If a person is not in good health, the saliva may not be sufficient or strong enough to make the necessary commencement in the change of the starch

and in this case the food is sent on in a condition that causes some derangement in the machinery. In the case either of improper mastication or defective salivary juice, the extra work thrown upon some parts of the digestive apparatus will cause trouble in a short time, if the evil is continued.

The next act of preparation is in swallowing. There is considerable exercise in this act also, as the tongue is thrown back, or rather throws the food back, and forces it into the pharynx. In this act there is an effort necessary, which closes a little flap-door to prevent the air-tubes leading to the lungs from sucking in the food on its way to the machine for further digestion.

I have often noticed the exercise in swallowing when an infant is nursing at the mother's breast. The act of sucking and swallowing in a healthy child produces warmth and increased respiration, to such an extent that large drops of perspiration are seen on the child's forehead, and its little body is at a much higher temperature than when not nursing. This illustrates the amount of exercise there is demanded in the act of preparing the food for further digestion.

It is received into the stomach, and even its entrance there is not done without labour, for the orifice has to be opened to permit entrance within the walls of the stomach. No sooner is it lodged within, than the doors are again closed. This performance is repeated with every swallow, or every mouthful.

Having now glanced at the preparation of the food, let us pass on to examine the machinery which

turns it into so many channels, and in so many mysterious by-ways, in order to produce the proper nourishment for the system.

It is in the "cupboard," "shop," or "store-house," as Shakespeare says. This is a place singularly lined with fibres, membranes, and tissues. The blood vessels pour their fluid in and pump it out through the great artery and its branches, while the whole operation is controlled by great nerves and small tissues, which centre in their respective places to keep guard and control of what enters and leaves the department over which they are placed.

Within this sacred castle, there is a commotion started as soon as the food enters, like the agitation produced by a centrifugal reel in the process of refining flour, only that the motions are more churn-like. During this commotion, the gastric juice impregnates the mass of food, and this is designed to complete the further change of the starch, so as to render it soluble, and capable of assimilation.

This it will do, provided the saliva of the mouth, during mastication, has been of sufficient strength and quantity to do its part. If the starch has not been changed sufficiently to suit the stomach, the stomach passes it on to the smaller intestines, to be handled there by the pancreatic and other strong juices. In such cases the starchy foods do no good in the way of nourishing the system.

On the contrary, they cause fermentation, and an accumulation of carbonic acid-gas while being agitated; so the gastric juice, in its efforts to change the starch, causes the wind to belch upwards in

eructations for vent from the mouth. Again, when the stomach has laboured in vain to handle the unchanged starch, it sends it on to the smaller intestines, where the same difficulty is met with, which sends the wind downwards to escape through the rectum. If the wind does not escape from the stomach upward, nor from the smaller vessels downward, there is worse trouble than wind in store, which may soon be realized, for there can be no proper assimilation under such circumstances.

The food that was eaten was worse than wasted. The mucous membranes, glands, tissues, and all the circulatory ducts are more or less deranged. There is a bloated sensation, with such fullness that at times the clothing has to be loosened. The only remedy is to void the wind, or get rid of the accumulation of undigested food from the bowels.

To do this, the usual practice is a purgative. The right and proper course is to fast, drink hot water, and then be careful of your diet in future.

As it takes the whole digestive machinery, including the preparation of the food, to change the starch from an insoluble, indigestible article into a soluble, easily digested one, the question arises, why should people of weak digestion use starchy foods at all, unless in their changed form?

The stomach can digest nitrogenous foods, such as are referred to in other chapters, and these foods are really the muscle builders, life sustainers, and waste repairers. The stomach cannot act sufficiently on the starch, sugar, fat and oily substances, and these form the principle diet of most people in our day.

If the starch is partly changed by the saliva, it is then rendered capable of further change as it passes on. If the starch is partly changed before eating it, or before the saliva touches it, then it is capable of being handled by the other parts of the machine when it passes on to them. The very commencement of digesting starchy foods is by the saliva, or by a scientific process resembling the change effected by the saliva.

Just look at the menu on any dining table, and notice fat in the soup, in the meat, in the biscuits, in the pastry, as well as the butter on the bread, and fat in the gravy. Look at the starch in the bread, potatoes, vegetables, rice, tapioca, corn-flour and biscuits. Look at the starch, sugar, and fat, all combined, in the fruit, puddings, pastry, biscuits and dessert.

These starchy, fatty, sugary substances, together with various drinks, make the stomach a "store house" that is filled with substances more fit for the cess-pool than the dining room.

It is clearly seen from the analysis given on the last few pages that the stomach cannot digest starch, except by persons who prepare the food in a certain way, by proper mastication, and then only in cases where the salivary glands yield a healthy flow of strong juices.

Notwithstanding the great solvent power of the gastric juices, so that in certain cases even iron nails are dissolved by it, yet starch often passes on in an imperfect state to the intestines, and there creates carbonic acid gas, without being digested.

In a hospital in London may be seen a case containing knives taken from the stomach of a celebrated knife swallower, who, for a wager, made an exhibition of swallowing so many pocket knives that they killed him. When these were removed from his stomach, they were all more or less affected by the gastric juices and action of the stomach, especially the rivets, as the knives are nearly all in pieces, while the handles, made of ivory and bone, are not so much changed.

When Dr. Beaumont made his celebrated experiment on the young French Canadian, about half a century ago, he gave to the world some most interesting and valuable information in regard to the action of the stomach on foods of various kinds. This young Canadian, while in a skirmish in which the doctor's regiment was engaged, received a gun shot wound directly over the stomach.

He was treated by Dr. Beaumont, who seized the opportunity of making observations and experiments which have ever since been of vast importance to the medical profession. He used a powerful light, which reflected into the stomach through the opening, and by means of a small cord, with pieces of meat and other foods attached, passed them into the stomach, and after watching the effect as well as he could, withdrew them at stated periods for closer examination.

He found that when food in too large quantities was given, it caused a distention of the stomach, and a longer period elapsed before the food was acted upon by the gastric juice. In some instances half-an-hour or more elapsed before the food was

reduced from its solid proportions, by the churning process, to a pulpy mass, so as to be digested.

From the observations already noted, and from the vast experience of men who have devoted many years to the study and practice of dietetics, we learn what supreme folly it is to over-indulge in eating more than the system requires. Three meals a day are sufficient for any person, and one of them is to be a very light one.

The feeling of hunger indicates a most favourable condition of the system, when what is eaten is easily digested. The machinery of digestion requires rest at times, the same as any mechanical contrivance made by human hands. Abandon the habit, if it has been formed in ignorance of the baneful results, of eating and drinking whenever the slightest emotions of hunger or thirst arise.

Do not chew gum. No morsel of food should be eaten, nor anything taken into the mouth, between meals.

Do not chew tobacco. Reserve all the chewing capacity of your jaws, and all the saliva of the mouth, for the food at proper meal times. Then practice chewing with all the expertness of an athlete. Try and see how many times you can bring the lower jaw up to the grinding point of the teeth above: move the food about in the mouth as much as possible in the operation, so that the saliva may penetrate every particle of it.

This is very important, especially with persons of weak digestion. Drink no liquids whatever during your meals, but do not neglect to drink plenty of hot or warm water at stated times between

meals,—not a sip or two every time you feel a little thirsty, nor a glass of ice-water whenever you feel too warm, nor a horn of whiskey whenever you are fatigued or in the “dumps.”

The great benefit people derive from a short sojourn at Buxton, the famous mineral water resort in England, is largely owing to the temperature of the water they drink. It is always, in winter and summer, at a temperature of 82° as it comes from the well. The physicians recommend people to drink it pure, and at that temperature, and not too often.

So with any water ; it should not be taken cold, but as near the temperature of the body as possible. It then acts with great benefit by removing, through the kidneys, the uric acid and other poisons which concentrate in the system, and produce headache, neuralgia, rheumatism, gout and a host of troubles.

In further considering the analysis of the digestive apparatus, with a view to understanding the whole subject, there must be a special reference made to the liver. This is the largest organ in the body, and the great filterer of the blood. It rests partly upon the stomach and intestines. It is divided by deep fissures into lobes, so situated in the abdominal cavity as to act an important part in the preparation of pure blood, into which the food we eat is intended to be converted.

There are certain vessels which convey the blood to the liver. They are connected by a network of small veins and capillaries. Then there are others which convey the blood from the liver, after its functions have prepared the bile, transformed the

saccharine substances, and elaborated the albuminoids.

This organ does a wonderful amount of work in separating the nutrient materials contained in our food before they are assimilated and capable of affording nourishment to the body.

The bile, which is a preparation produced in the great laboratory of the liver cells, is like soap, and acts as such in producing natural excretions. It checks fermentation, and acts on fats and oils, altering them all it can.

It is impossible to alter the large quantities which some people consume, and in such cases the bile is not to blame, but the foolish gourmand. The bile is stored up in the gall-bladder, which is situated near the liver. When the food has been digested, there is no work for the bile, so it is stored in its receptacle, and sometimes amounts to three or four pounds.

When too much food is eaten, or food of an improper quality, or when heavy meals are indulged in, without proper exercise, it is impossible for the liver to perform all its functions so as to serve digestion and assimilation in a manner that will vitalize the system with health, strength and vigour.

There is then indigestion, torpidity of the liver, sluggishness, which mean that the bile is incapable of handling the accumulated conglomeration which is formed in the system. Then follows a depressed feeling, nervousness, irritable temper, anxiety and groundless fear; want of vigour, want of strength and want of assimilation, cheerfulness and buoyancy of spirit; because the circulation is defective, the

blood is being poisoned, and the whole physical force is going at a low speed, with symptoms that indicate a stoppage of the engine entirely, or breaking down of some of its parts.

When the liver is affected, the kidneys are more or less deranged also. They are properly and simply two glands that secrete the urine and pass it on to the bladder. Any cause which produces disease of the kidneys can be traced back to the liver and bile, as the kidneys act for the others in a vicarious sense, and do all they can to purify the blood, so as to prevent the poisonous saccharine and albuminarian deposits from forming diabetes and Bright's disease which afflict so many.

The kidneys always give faithful warning. They send forth a urine that has a sediment or gravel, or it is scanty, profuse, high coloured or of strong odour. They afford the best warning when a headache, or depression, slight cold, or a fit of the blues are attributed to the weather or some slight disturbance. They send forth a fluid to tell the patient that immediate attention is demanded to what is eaten and drank.

Many eminent physicians attribute diabetes to worry, mental over-work or insufficient exercise in the open air ; but there are thousands of cases of this disease where none of these causes are traceable. The main cause is error in diet, which produces a diseased condition of the digestive organs, followed, it may be, and generally is, by worry, owing to the depressed state of mind and body caused by the abuse of the digestive functions.

The proprietors of some patent medicines who

claim that their remedies act like miracles in restoring health, are careful in directing attention to the diet, exercise, sleep and baths, and how people should live generally.

Then they go on and say something like the following: "The last thing at night take a tumblerful of milk. A cup of soup and some bread between breakfast and luncheon. A cup of chocolate and a bun between luncheon and dinner. Some good candy always carried in the pocket and eaten whenever opportunity offers."

Directions such as the above will guarantee persons of weak digestion to require some sort of medicine every day they live; and they cannot live long, for even the most robust would soon die of indigestion if they followed the above abominable advice.

The following from some one under a *nom de plume*, which he has done well to use, and so avoid ridicule, writing on diet in health and sickness, says:—"The ordinary daily diet should be something like the following: beef, eight ounces; bread, one pound; potatoes, one pound; eggs, two; cheese, two ounces; milk, half-a-pint; butter, four ounces. This is what is known as the physiological diet table, and it would be a very liberal diet if it all found its way into the body, but no allowance is made for what is not absorbed."

The above is recommended to be eaten every day, and yet, this remarkable writer says or implies, that it is not all taken into the body! Where does it go to? It is eaten; yes! Then it must go into the "store-house," "the shop," or "the cupboard," as

Shakespeare calls the stomach. It is no wonder it is “not absorbed.”

The same writer gives the following directions for dieting fat people:—“Breakfast: white bread, two ounces, well-toasted and buttered, tea without milk or sugar, eight ounces. Dinner: soup, made with beef marrow, fat meat, with fat sauce, four ounces, asparagus, spinach, peas, beans, or cabbage, tea, without milk or sugar. Supper: an egg, a little roast beef, with plenty of fat, an ounce of toasted bread, covered with butter, a cup of tea, without milk or sugar.” Why any man in his senses, or any journal of respectability, could publish such abominable stuff as the above is a mystery.

There is fat enough there for a four days’ regular diet; and this is recommended for reducing obesity! It would seem necessary also for this fat man to carry with him continually a pair of scales and stamped weights, in order to have the exact amount prescribed. If he uses such a diet long, he will require an extra furnace for burning up the fat, as the one supplied by nature is incapable of doing it. This new writer must have been a stoker instead of a doctor.

CHAPTER XVI.

GENERAL AND SPECIFIC DIRECTIONS.

AND now I come to the point of general directions in the diet necessary to health, strength and vigour for persons in delicate health, and for those who would ward off disease.

Wherever any serious disease has set in, and especially where complications exist, I would, at the very outset of these directions say, employ a good physician. I do not, and it would be a mistake for any one else, to ignore the medical profession because some of the members of the healing art are stupid, and most provoking in their modes of treatment. That is no reason why the noble profession should be blamed.

It is the case in all professions that some are incompetent, impracticable and almost useless. In all departments of life are to be found men who have mistaken their calling ; but there are others who are useful.

Their long years of study and preparation should fit them specially for treating the various diseases of the human system, the various causes of ailment, the various remedies to apply, and all about dietetics. But few of them, however, have the tact and ability to apply their knowledge in a successful manner. Here and there is found one who is singular enough

and independent enough at times to "throw physic to the dogs," and apply natural means of promoting health.

One, whom I knew, took a case in hand of a man who had been treated by different physicians, but continued to grow worse under their treatment. The first thing this doctor did was to put the patient on a diet of butter milk—only butter milk,—which was continued for one week with satisfactory results. Then he varied his diet under the direction of a nurse, who watched the case and reported, in writing, to the doctor every day.

Besides these reports, she had written memoranda, according to directions, and these she studied every day. The patient, who had been very corpulent, in three months was reduced some fifty pounds in weight, but so much improved in health and strength, as to be able to ride out once a day, and then take short walks.

It was about a year from the time of commencing the treatment, when the doctor told me that his patient had completely recovered, and had been engaged in his business for some months, to the great surprise and satisfaction of his friends, and, said the doctor, "I cured him without one particle of drugs."

This was some ten years ago. Since then, other physicians have joined in establishing a college at St. Louis, U.S., for the education and training of physicians in dietetics and massage.

Another remarkable case came under my notice of a country merchant, whom I knew very well. He had been busily engaged for some years in

acquiring a fortune. While money grubbing, he had neglected the care of his health, but endeavoured to keep up his appetite, which was considered all important. How many make the same mistake ! He ate and drank everything he could to nourish and strengthen, except alcoholic liquors. When the appetite failed, tonics were taken to spur it on.

At the age of fifty, as he was beginning to think of retiring from business, he found himself fat, round and plump, with commendable pride in his own estimation and in the eyes of his friends. But he was strangely weak. He could stand no draft nor exercise. He took cold easily, and his food did not nourish him ; sleep did not refresh him, while he continually grew worse.

To try and save his life he went to a sanitarium where he was treated by dietetics and massage. He remained there nearly two months, and though the expense troubled him, as it took a lot of his savings, he was so much improved in health and had obtained so much knowledge of how to live, that he was full of bright hope for the future. I saw him on his return journey. He was a mere shadow of his former size, as he had got rid of ninety pounds of accumulations, which he had proudly stored up, but now learned the folly of carrying about for the sole purpose of clogging up the arteries, the circulatory, and digestive organs of the body. This was ten years ago and the man has improved in health and enjoyed life ever since. He took no drugs.

In directing people in the practice of dietetics and massage, and the manner of carrying out this system successfully, there is something more

needed than reading a book like this. No matter how determined a person may be to follow the directions, there is not one in a hundred will do it without a properly trained nurse, who will from principle and practice attend to the patient.

To employ such a nurse is the most efficient means of getting cured, and of obtaining the necessary instruction of how to live in future. It costs nothing but the nurse's wages and expenses ; while to travel to a sanitarium, and pay the expenses of such an institution, costs many guineas, compared to the expense of a nurse in your own home, who will direct in the preparation of the necessary food and drink, to teach massage, and keep a daily written record of the effects of the treatment.

The society of the home circle and friends, together with the company of a refined, educated lady—as the nurses generally are who adopt this profession—are all of great benefit at the start, and for a month or two, or three, as the case may demand ; and when the new mode of living is established, and a new life is revived, then a change of air and place for a short time will do wonders in the way of a permanent restoration to health, strength and vigour.

To those who prefer taking their own chances to employing a competent nurse, the following specific directions are given. But it is almost impossible to write out what is suitable in all cases. I have already referred to the most important principles and practices of this system.

First of all, in the matter of drinks, there should be from two to three quarts of water a day, for nutritive purposes ; but in drinking this quantity, there

should be no feeling of fullness nor oppression after it is drank. Then, drink it hot or warm.

Milk is a food, and should be taken as such, and not as a beverage. In cases of diabetes, buttermilk and skim milk may be taken with advantage in suitable quantities, which only the person using them, or a competent nurse, can fully determine.

The effect of tea was tested by Dr. Beaumont, and was found to act as an astringent on flesh meat, hardening it, similar to the process of tanning leather. Persons troubled with headache, neuralgia, nervousness, and such like ailments, had better give tea a wide berth. Many people use saccharine tabloids for sweetening their tea and coffee instead of sugar, especially in cases of diabetes. They had better be careful, for instances are recorded in which great harm has resulted from that innocent looking little tabloid, and when given up relief was experienced. The profound ignorance which prevails, even among some who claim to be experts in making it, is the cause of a good deal of the trouble arising from tea drinking. Its preparation is often very imperfect, and the quality bad.

Coffee is very good for people in sound health, but cannot be recommended for dyspeptics or persons of weak digestion. Cocoa, if the starch is eliminated, and the article not adulterated, is a more useful drink, but cannot compare with pure water for all general purposes. Wine and spirits are out of the question. They are very good articles in their place, and useful for mechanical and medicinal purposes, and wine is the only grape-juice suitable for sacramental purposes.

Beer, ale and porter, with all the hosts of artificial drinks—fermented or unfermented, aerated, carbonated or still—are not to be compared to pure water for quenching the thirst and keeping the system in a good, sound state of health, strength and vigour.

If any of the popular beverages have to be used, I would say use a little good Scotch or other similar makes of whiskey, diluted with carbonated soda water. Even this should be, in most cases, limited to very small quantities during each twenty-four hours, not more than two half glasses when diluted, during the day.

As to food, I will once more refer to the importance of flesh meat, with prepared cereals in which the starch is changed, as the most beneficial diet for indigestion and most of the prevailing distress with which people are troubled in this age.

Dr. Beaumont's experience with the French Canadian, whose digestive organs he had the privilege of looking into and testing, found that animal food was much more completely digested than vegetables and other starchy substances. It satisfied his hunger for a longer period, and was more stimulating. This fact alone is valuable as an incentive to the adoption of the system here advocated, about which I shall now proceed to give more specific directions as a guide to numerous battalions of our race who are slaughtered by the destructive enemy of indigestion. The first thing to consider is the *menu*. It is varied and abundant as already intimated. No one need complain nor go hungry who adopts it.

And the adoption of it, together with all the directions given, will put the body in such a condition that when from some cause or accident the services of a physician are required, he will find his medicines more effectual in their design than they possibly could be if the system was all clogged up and every organ more or less deranged.

Meat. Use good beef, roasted, broiled, boiled, minced, potted or shredded. An excellent form of cooking beefsteak is to simmer or stew it after frying, and then add brown gravy of the juices with parched flour, nicely browned, poured over it. This is tender and delicious when properly done.

Use mutton, lamb, venison, grouse, partridge, chicken, turkey, pheasant, and prepare them in a similar manner.

Sausages. What! Sausages? Yes; if you make them as follows:—Take one pound of good lean beef, one pound of pork, and one pound of parched bread crusts or thin slices of bread baked in the oven until quite browned through, and grind or mince them all up together in a good mincer. A good sized mincer is a necessary article in every kitchen. It is a good plan to put this mass through the mincer twice, and then use the sausage filler, with suitable intestines to form the sausages for cooking in the usual way. Use no spices or savoury except a very little pepper and the usual quantity of salt. If the thin skins are not obtainable, make the mixture into thin patties and fry, before eating, like sausages.

Fish. Sole, plaice, whiting, white-fish, herrings, mackerel, trout, codfish, haddock, bass, turbot,

smelts, and many other sorts may be used fresh, if properly cooked. If any of the above are found to disagree with the digestion, change at once to the kind that is agreeable. Salmon, lobsters, oysters, and some other kinds will surely not agree with the stomach of a dyspeptic. Oysters are the scavengers of the sea, and vile stuff in any form. If eaten at all, have them colloped with baked bread crumbs, and then baked in a hot oven like a pudding.

Eggs in moderation, when fresh laid, as farmers generally use them, are very good. Poached eggs on toast, made of gluten flour, are very good, but as a general rule by the delicate and infirm, twice as many eggs are used than should be.

Milk must be cautiously used. The best mode of using it as a nourishing food, is to boil and thicken it with parched flour which has been browned in the oven for an hour or two, so as to thoroughly toast it. In this way it can be used either thick or thin, to suit, for sauces, gruel, pap, or drinking.

Bread. This is the great stumbling block by which tens of thousands of the human family are sent headlong over the precipice into the fathomless pit of premature decay.

I have dwelt upon this subject so fully in former chapters that I need not add more, except to warn people against the use of white, starchy bread, no matter how pleasing to the eye or palatable to the taste. It is the mighty scythe that mows down human beings by the thousand, filling up the sanitariums, hydros, hospitals, infirmaries, and churchyards,

Use whole wheat flour for all purposes, instead

of white flour. But do see to it, that it contains only the natural wheat grain in its entirety except the outer woody fibre, without the addition of more germ or anything else. More germ than nature put in is very damaging to health in the end.

In cases of indigestion or diabetes, use gluten flour chiefly, or flour in which the starch is changed into a soluble and easily digested article. If you cannot get this, and cannot get prepared oats, wheat and barley for porridge, then eat as little as possible of farinaceous foods and more meat, until your digestive organs recuperate their natural strength and the saliva can change the starch. Chew your food twice as much as before. Always have a hot oven and hot water at your service, and use them more than ever in the preparation of food and drinks.

Biscuits are next to confection in disturbing the digestive organs of men, women, and children. Do people know that to every two pounds of flour there is one pound of fat and one pound of sugar added in making the fine, fancy biscuits? The manufacture of these enemies of health is very extensive, and thousands of people eat them at all hours, forgetting that with each swallow the whole machinery of the digestive organs is taxed to handle the small morsel, as well as the full meal. Avoid eating too often. Think of something else, and do something else.

Vegetables. Celery, lettuce, tomatoes, cauliflowers, mushrooms, young onions, spinach, watercress and horseradish may be used in moderation by many people.

Fruits. Cranberries, sour cherries, limes, lemons and red currants, but sweet fruits had better be avoided, and must be avoided in cases of diabetes. Avoid also potatoes, pastry, beets, carrots, peas, turnips, parsnips, rice, tapioca, corn-starch, corn-flour, preserves and ordinary chocolate.

Puddings, pies, cakes, custards, sweets, jams, raisins, apples, pears, and plums, when summer time comes, had better be used in sparing quantities by anyone, even in health, if predisposed to catch cold easily, or other derangements. Persons enjoying perfect health may eat fruits, but to eat them in addition to full meals three times a day will certainly work mischief sooner or later. Eat three meals a day only, and allow four or five hours between each.

Do not drink anything while eating. Do not eat anything between meals. Eat slowly and masticate the food thoroughly. Nip each mouthful from thirty to forty times. Never eat until you cannot eat any more. Rise with an appetite and you will always sit down with one. Eat no food, even of the best, as given above, if you find it disagrees with you. See that the bowels are moved once every day at least. Do not be alarmed at some strange freaks that may come from the bowels or kidneys, provided they do not continue. It is very important that the urine be clear, especially in the mornings. Make a free use of good olive oil once or twice a week.

Rub yourself every morning and evening for at least five minutes, and bathe two or three times a week.

Drink hot or warm water as your principal bever-

age, and lots of it, for nutritive purposes, every day. Cultivate a cheerful spirit and sweet disposition, and don't neglect laughter and merriment, pleasant games, and plenty of good air and sunshine. The meal time should be a pleasant, joyous season, lasting half an hour or more.

If each one would but study the analyses of foods, the anatomy of the human system, and the wonderful mechanism of the digestive organs, there would soon be a pleasure experienced much greater than that arising from reading novels or the study of any other subject. These matters, however, need not form the conversation at the dining table.

Better have some good, spicy jokes, pleasant repartee, and seasonable references, which will add spice to the conversation, and set all in a roar of laughter whether they feel in the humour or not. I once breakfasted with a family in London. When the fish was served, the husband complained of its burnt edges ; when the coffee came on he complained of the flavour, and he looked sour, and the tones of his voice indicated ill-feeling. His wife looked at him a moment and then said, in a very mild and winsome tone of voice, " My dear, you have a charming disposition this morning." I burst out into a laugh immediately, and the husband laughed to see me laugh, then all at the table laughed heartily, when the husband made some sort of an explanation that he did feel out of sorts, as he had had a poor night's rest, he believed from eating a Welsh rarebit for supper the night before.

At an hotel table one morning there was seated a young man, green from the country, together with

several guests of the house. When the waiter came round with tea and filled up the cups, she said, "Will you have your tea seasoned, sir?" meaning sugar and cream, or, most likely, milk. The young man made no reply, as he did not want salt and pepper in his tea, and his idea of seasoning was naturally with such condiments. She, thinking he was deaf, spoke louder in the same language. Then he replied, "A little pepper, but no salt, by jingo!" This set the whole company in roars of laughter and merriment. People can afford to be laughed at sometimes, and with pleasant grace turn it to good account by the good it does others at the dining table.

Allow me to urge you, dear reader, in the pursuit of health, to cultivate a cheerful spirit. Read Shakespeare. Study his characters. Quote him often, and do not brood upon wrongs, real or imaginary. Neither allow yourself to be fretful, fractious, nor irritable. Look on the bright side of everything, and turn the dark, unpleasant things of life into sunshine—at least, let the bright sunshine of a radiant smile drive away the gloom as soon as possible. Despise small worries. All this you can do by perseverance and study, and at the same time be cultivating the habit of a cheerful temperament more quickly than you imagine.

When meal time comes, if worried or the temper ruffled, you had better not eat, for the nerves and brain exercise an influence over the whole system. Wait. In any kind of brain work, also, it is better to rest for half an hour before meal time. The old, old adage, "After dinner sit awhile, after supper

walk a mile," is one that should be followed by everybody. The meal time is, therefore, a very important epoch in every-day life. There is to be a preparation for it, and a rest after it, and pleasure during its continuance.

All business worry and difficulties of every description must not come to the dining table. It is of the utmost importance that these little things should receive attention ; they are liable to be overlooked. It is in consequence of this that I dwell upon the little details of every-day life.

There is one thing more that should not be lost sight of. Every person, whether sick or well, will be the better by doing something for another.

If you go to church it should not be the object to get, but to give. If you give worship you are sure to get grace. So in every-day life ; by doing something for another, you are certain that it will be a benefit, not only to the other, but to yourself. This is the way to be happy under all circumstances.

Those who imagine themselves made of finer clay than others, and should be waited upon, served, and do nothing themselves for themselves nor anyone else, make a great mistake. In how many ways these people could be useful to their fellow creatures. Such people are required to spread a knowledge of dietetics, hygiene and massage, such as this book teaches. There is room for scores of them, and if they will apply to me by letter, at my address, stated in the preface of this book, they may be directed into fields of great usefulness, and find that in serving others they will be pleased and profited themselves.

In correspondence always send an addressed and stamped envelope to secure a reply.

There is one other important direction in the pursuit of health—that is sleep ; secure plenty of it. You cannot sleep well unless you have good digestion. If troubled with sleeplessness it is a warning that your diet is not correct. Night is one of the wise and necessary interruptions in the economy of Nature. It is designed for rest; eight hours of it for sleep. Most people, especially delicate and invalid ones, require that amount of sleep. They should retire early and regularly, for an hour's sleep before midnight is worth two after.

One of the effects of our civilization is to turn night into day in this age of gas and electricity. Do not heed the allurements of temptation to break the laws of Nature by late hours at night, nor the slothful folding of the arms in the morning for a little more sleep and slumber, but arise for massage and other devotions to body and soul. One third of our time is intended for sleep. Twenty-five years in a lifetime of seventy-five should be encompassed in the arms of “tired Nature's sweet restorer, balmy sleep.” Think of that. It is not a waste of time, but re-invigorating, re-vitalizing, rejuvenating, and a great restorer of waste, of health, strength and vigour. If men and women work ten hours—as they should do—sleep eight and take six for recreation, and besides this take one-seventh of the week for rest from labour, they will be following the laws of Nature, and live as long and as happy as they were intended to live.

CHAPTER XVII.

CONSUMPTION.

I PURPOSE giving a few facts relating to the treatment and cure of consumption. It was formerly considered a very dreadful disease and incurable : so was diabetes : but they have both been mastered and cured. There is no necessity for anyone to die of these diseases.

Statistics show that fifty years ago the death rate in Great Britain from consumption was 29.84 per thousand of the population.

In 1892, the number had fallen to 10.82 per thousand, or about one third ; still, this disease is far more prevalent than it should be.

There is no doubt that many deaths were formerly set down to consumption which were caused by some other troubles. Any wasting disease, such as resulted from weakness produced by mal-assimilation, was often attributed to consumption, when no tuberculosis existed.

Latterly, there has been greater care exercised in the diagnosis of diseases, and the true cause of death has been more closely accounted for in making up statistics.

This may explain to some extent the reason of the decrease in the death rate of this fell destroyer of so many people in this part of the world.

But it must be admitted that the consumption hospitals, and specialists who have made a study of this disease and the means of relief, have done excellent work in the way of reducing the mortality.

Still there is more to be done, especially in the way of prevention.

Mark the beginning of this disease. Ah! you cannot very well do this, for the beginning is so deceitful. The slight cough is regarded simply as a cold, and excites but little attention. The breathing is not seriously affected nor is the appetite impaired. After a time the cough increases, then appears somewhat better from a little attention which has been given to it. Soon, or it may be a few weeks or months, the cough increases in frequency, and is accompanied by expectoration of a clear, frothy saliva. Some parts of the day there is experienced a slight degree of chilliness, followed by heat, and, may be, perspiration at night. The person becomes paler, but so gradually that it is scarcely noticed, until a languid feeling comes on, with fatigue and weariness. These are among the first symptoms. The second stage develops so gradually that the person is on the road, and travelling at quite a speed, before he knows it. The cough increases, the expectoration increases: the fatigue increases: the breathing and pulse are more hurried: the fever increases, with greater languor and emaciation. A few months pass in this way until the person has, perhaps, been six months or more on the phthisis journey without being actually aware of it. One physician will make an examination and pronounce the case as a little derangement of the liver, but he will soon be all

right. Another one will diagnose the case, and find an increased density in the structure of one of the lungs, but the stethoscope does not reveal any very serious trouble. The voice does not indicate anything wrong nor is the percussion duller. A tonic of some drugs is generally prescribed, with directions to eat plenty of good, wholesome food so as to regain strength. All this time, in many cases, yea, in most cases, the person is on the same road and travelling at an increased speed. It takes from nine to eighteen months, in most cases, when a person gets fully started on the phthisis road, to reach the end of the journey. It is a disease that affects people in nearly all countries. The period of life at which the greatest mortality from consumption occurs is between twenty and forty, and more females than males die of it.

There are two great causes which produce this wasting disease. The first cause is remote: the second is exciting. The first cause is remote, because it has to do chiefly with the pre-disposition to the disease from constitutional hereditary transmission. This cause may be overcome entirely, because it is remote. No person need contract the disease owing to being born of consumptive parents. He need not necessarily fall a prey to the disease on account of the accident of birth unless the exciting causes are tampered with, and then he is more likely to become affected than one born of healthy parents.

The exciting causes are impure air, bad quality or insufficiency of food of the right quality.

Insufficient clothing and exercise, excessive mental or bodily labour, mental depression and abuse of liquors.

In fact all those agents which operate in depressing or lowering the tone of the system, generally act as exciting causes in the production of consumption.

But of all the exciting causes of this disease, the most common one is the bad quality, or insufficient quantity of suitable food.

For persons exposed to it from remote causes, the prophylactic, or preventative means should be carefully studied by everyone concerned, while those who have started on the road and do not know where they are going, can be side-tracked and escape the danger that certainly awaits the through train.

The curative properties of the system of dietetics and massage have saved many precious lives from disease and death owing to its power to tone up and strengthen the physical and mental powers to such an extent that the dread tubercles have no chance to work upon the lungs.

It is now clearly proved that of all the medicines given in this disease, none have had the effect of curing it. In the early stages of the disease, tonics are useful ; but that is about all that can be said of them. There must be a thorough change in the blood and tissues, and that can only be effected by a change in diet, air, and water. All the emetics, naptha, prussic acid, inhalation of iodine, Iceland moss, henbane, hemlock, and other remedies cannot be relied upon. Cough medicines are a delusion, and often affect the stomach. Opium-gum preparations may allay the cough, and mineral acids restrain the perspiration, but only for a short time. Cod liver oil is good, but this comes under the food regulations. Even cod liver oil will only serve

as a palliative, unless other foods of the right sort are used in connection with the full treatment prescribed.

As to cures of consumption, the first fact I will record is that of a young man, of about 22 years of age, whose mother and sister died of consumption, and he was far on the journey to the graveyard. His cough, expectoration, and "night sweats," brought him very low. For nearly twelve months, he was considered a sure victim to that dread malady. He disposed of his property and inheritance by will, but one day he happened to take up a newspaper, and there read an account of a person who had cured himself of consumption. This person's parents, brothers and sisters, had all died of the disease, which had attacked him at the age of 28 years.

He began to take full inhalations of pure, fresh air; threw his arms back, and expanded his chest. Then he would thump his chest with the palms of his hands, and inhale more fresh air. He continued this practice for a few days, when he found an improvement, which encouraged him to give more time to this exercise. He ate beef and mutton chiefly, with bread made of wheat, which had cockle and a percentage of wild peas mixed with it. The bread was very coarse, but the exercise increased the relish for it and the meat. He gradually grew stronger, until every trace of the disease had departed.

The account of the cure was so simple, and without a trace of any mercenary design in its record, that the young man began to practice the same

course of treatment. The inhalation of pure fresh air into the lungs, in a few months, enabled him to expand his chest five inches from a complete exhalation to a full inhalation. He thumped his chest with both hands, which so affected the tissues about the heart and lungs, that the thickened lobules, and partially clogged-up arteries, became clearer, and the fresh air gradually penetrated every part of the breathing and respiratory organs, so that a change was effected, and repair began to be realized.

His changed diet also assisted nature in removing the disease from the blood : for is not consumption as well as other diseases produced by disease or impurities of the blood ?

These two cases prove that hereditary predisposition to this disease does not necessarily mean its fatal development.

No one need despair. There are no hopeless cases where dietetics and massage are used with discretion, and a determined stand taken, and a gallant fight continued. It requires effort and perseverance, the same as success in any undertaking requires them.

The process in all Nature's healing is slow. The disease comes on gradually, and so does the cure. When some vantage ground is gained, and the seeds of repair are sprouting, the diseased lungs and improved blood are causing the microbe to let go its hold. Then is the time to keep up courage, and not to get weary in well doing.

Always remember, this is the only way to cure consumption. Avoid every kind of food which ferments and causes acidity, oppression and over

production of bile. Do not hurry up the cure ; some people are anxious for a good appetite all the time, so as to be able to eat plenty of food, which often puts them back instead of forward.

Another case was that of a beautiful young lady who was so low, that when I saw her lying on the sofa, almost bloodless in appearance, and with features that bore an expression of a heavenly lustre, I considered she would soon be with the angels. Several weeks had passed in this condition ; she evidently had no consumption of the lungs, but of the bowels. I advised, as the only means of cure, the adoption of a special diet. Several physicians had been consulted, but she gradually grew weaker, until she was unable to leave the house.

I did not see her again for a month, when one evening I returned to my house, and upon entering the drawing-room, was startled by the appearance of a beautiful young lady, who sprang to her feet to greet me with out-stretched hands and beatific smiles, that I exclaimed :—"What ! Is this Miss H—, or her sister ?" She replied : "Yes, truly ; I am Miss H—." "What a remarkable change." "You may well say so, for I have walked all the way here, and am not fatigued," she replied.

This was another proof of the effects starch-changed cereals, minced beef and hot water treatment had upon disease. This was seven years ago, and ever since she has enjoyed better health than she had for ten years previously.

Another case of pulmonary consumption was that of a woman, sixty-five years of age. She and

her husband were very poor, and lived in a little house in the country. Her diet was chiefly milk, from a cow which they had possessed for several years, and was, in fact, their chief support. One summer the woman became ill; there was a gradual decline of energy, some cough—"a cold," as she thought. In a few weeks she could scarcely milk her cow or do her other work. In another few weeks a physician was summoned, and upon examination found out the trouble.

Then he set to work to find out the cause. For experimental purposes he had the cow killed, and found its lungs riddled with tubercles so that they would scarcely hold together.

The woman was sent away to another house, her diet changed entirely, and she soon got well. Diet evidently produces disease, and diet just as evidently cures disease.

But there are butchers who for years have slaughtered cattle whose lungs have been decayed with tubercles. They have eaten, and sold the meat for others to eat. They have fed their own families and other families upon it as upon other meat and realized no harm. This has been done for centuries past to a more or less extent, for many cattle, especially cows, have tuberculosis.

The act of cooking the meat must either kill the microbes, or the sustenance from the meat so tones up the system that the microbes have no effect in producing a like disease.

It is different with the milk, butter, and cheese, which are not, as a general thing, cooked at all. Milk can be boiled, and many people are now

using sterilized milk altogether. But the products of milk, especially butter, is used in the raw condition, and hence the danger. Olive oil is preferable to butter, while the margarine, which is so much under the ban, is, if pure and properly made, safer than pure butter made in the best dairies.

Another case, and the last to refer to here, was that of a young farmer who at the age of 23 was attacked by consumption, though none of his family ever had it. He was rapidly sinking, and the doctor said his left lung was gone owing to the disease. A young woman to whom he was engaged volunteered to go and nurse him. She was an intelligent and very well educated girl. After being in the house a few days with her eyes about her, she noticed that an open drain from the kitchen sink emptied into a cesspool near the window of the young man's bedroom, and a foul smell entered his room when the window was open for ventilation.

She proposed a change of rooms ; there was one upstairs at the other side of the house, to which the young man was removed. The open drain was arched over and covered with dry earth and then sodded. The diet was changed, and fresh air inhalations were practiced, cod liver oil and beef and other nourishing food were so prepared as to be pleasant and palatable, while an air of cheerfulness permeated the young man's apartments when the sun beamed in at the window together with the bright smile and hopeful countenance of the nurse.

In a few months there was a marked change for the better.

With only one lung this young man rose from

his bed, and in a few months more left his room for short walks. Then pleasant carriage drives were arranged along the country roads.

With every day, as the sun rose to drive away the darkness and shed light around upon the earth, so the hope of health and happiness rose higher and higher in the young man's heart. The winter passed, and the summer came again, and he and his faithful, bright-souled nurse were married and took a short trip to the seaside and then among the mountains. He is to-day well on in life, with a bright, healthy family of children, some of whom are married, while his faithful wife looks as rosy and cheerful as when she was the nurse, some 30 years ago.

This would be a brighter world if girls would study more the things that pertain to the health and happiness of those about them. What subject is there anyway so interesting as the study and care of the human body? The beginning of life and its continuance should be understood. What is it to breathe? Respiration—(*re* and *spiro*; I breathe again)—is the act of continual breathing. The object of breathing is to introduce a fresh supply of oxygen into the system, so that the products resulting from the breaking up of the various tissues of the body may be removed by the agency of the excreting organs—the skin, lungs, kidneys, and bowels.

The elimination of the most noxious of these products, which is carbonic acid, must be through the lungs by the act of breathing.

The act of deep breathing fills the lungs and

purifies the blood by exposing it to constant supplies of fresh air. If the importance of this study could be impressed upon the minds of parents, so that they would understand it, and make others talk about it, this world would be brighter, and it cannot be so unless healthier.

To ward off consumption as well as other diseases of the blood, there is required of every human being a certain amount of regular exercise in order that a fresh supply of oxygen is brought into the system by the respiratory organs.

Just look at this again, or rather in another way. A person walking a mile an hour takes into his lungs 52 cubic inches of air at each respiration, 60 inches if he walks two miles, 75 inches if he walks three miles, and 91 cubic inches if he walks four miles an hour. But the person who is idle or at rest only takes about 33 cubic inches at each inspiration.

The total amount of air which passes through the lungs in twenty-four hours, in order to assist nature in throwing off the noxious carbonic acid and to purify the blood, is therefore regulated by the number and extent of the respiratory movements.

The idle, lazy, indolent and sickly people get very little air into the lungs compared to the amount inhaled by the active, energetic, ambitious, healthy person.

The average quantity inhaled during the night is about 400 inches per minute, which in six hours would amount to 144,000 cubic inches, during the day at 502 cubic inches per minute, which in 18

hours would amount to 542,160 cubic inches, or a total amount for the 24 hours of 686,160 cubic inches. But this enormous sum is greatly increased by active exertion, and in the case of a labouring man the total amount required will not be less than 1,500,000 cubic inches.

If people would eat less deleterious food and use less fermented drinks, there would not be the need of inhaling so much oxygen in order to drive away the noxious carbonic acid and to purify the blood.

But it is one of the grossest inconsistencies of the age that people expect to enjoy health, do nothing, and eat and drink everything that comes along. They might as reasonably jump into the raging sea and not expect to be drowned, or throw themselves into the fire and not be burned.

And this all comes from ignorance. A person who is aware of danger usually takes precaution. If we were not animals, but composed of some higher or more celestial fabric, then there might be some excuse for aping to be something better than we are. As it is, we are animals, and likely to remain so as long as we live, and must therefore continue under the rules and regulations of animal life, but guided by intelligence, reason and judgment. If this is so, then, in the name of common sense, why is there so much ignorance on the most important subject in the world—health?

As already shown, physical labour serves the purpose of contributing air to the lungs, and this purifies the blood. When labour is not practicable some active exercise must be regularly taken. Massage is the most sensible, convenient and

valuable exercise for the great mass of people of any other within reach. This exercise, with plenty of good, wholesome food, pure air and water, and the absence of drinking during meal time, will contribute greatly to the strength and development of all the organs of the body, so that there need be no dread of consumption, even by those who are predisposed to it from hereditary taint.

This development of strength and hardness which is necessary to tone up the system and bring it into a higher standard of vigour, should be commenced in childhood. In fact, in the very beginnings of life, the aim should be to produce a strong, healthy, robust human being, who will be able to cope with the rough as well as the smooth ways of the life that is before it. Plants that are started in the hot-house are in danger of withering when exposed to the severe temperature outside, while the hardy perennial grows and thrives with but little attention.

Now, one of the little necessary things that should be attended to, besides the food, is the clothing in childhood. It is a mistaken idea so many mothers have, that the child's clothing should be thick and heavy, and from the throat to the toes of the feet and ends of the fingers. There should certainly be light, warm flannels put on at first, but as the child grows older, it is advisable to let the air in upon parts of its body at a time until the whole body will get accustomed to the air, not only at time of bathing but every night and morning.

Then again, when walking begins, it is an excellent plan to allow the child to run about the

room in bare feet, bare shoulders, and bare legs. The more this is practiced the better. If they steal away out of the room and into a colder temperature, it will harden them for the world into which they are intended to act their part. If children were allowed to go bare-footed and bare-legged indoors and out until they were ten years old, there would be a more hardy race in a few generations.

I have heard some mothers exclaim against seeing children in the parks, or in the streets, with bare legs, upon a cold, windy day, while I have admired the little ones, and watched to see if they felt the cold. I could see no signs of discomfort, and have remarked that they would be all the better if their boots and stockings were off too.

In the United States, there is a physician who is a specialist in children's diseases. His own children never wear anything on their feet or legs. They may be seen in the parks neatly dressed, while attended by their nurse, but their bare legs and feet are always exposed. This practice is kept up until they are ten years old. In his practice, he refers to his own children, and their good health. He decries against the custom of long stockings, with gaiters over them, coming down on to the boots, which some foolish mothers think are necessary to strengthen the ankles. It may strengthen them, the same as a plaster strengthens the weak back, and a dose of pills relieves indigestion, but the child will always have weak ankles, as the others always have weak backs and indigestion.

I have noticed in some of the northern towns of England, during the winter months, as well as in

other seasons, women, some of them above sixty years of age, besides children and girls of different ages, going bare-footed in the streets every day. The cold, stone pavement, and the wet, icy walks, did not chill them, nor did they ever appear to have a cold, or be otherwise disordered. The same practice, I understand, prevails in Scotland.

It may be considered a rude and primitive style. So it is: but if the modern system of living is going to increase a weakly, sickly race, who are constantly "out of sorts," the quicker we return to the rude and primitive system the better.

I once saw a tribe of Indians in the North West part of America, who had been out all the winter hunting. It was in the month of May, when there was snow still on the prairie, yet all the children up to ten years or so of age were stark naked. The old chief was about ninety, with bare body and legs, and only a girdle about his loins; while the squaws had short petticoats and a shawl over their shoulders. These people required no physicians; only the idle and dissolute ones came to an early death.

But we need not return to all these rude and primitive ways in order to escape consumption and other diseases. The exposure of the bare skin to the pure open air, can be practised with massage and dietetics, by the most refined and accomplished among us. Our high state of civilisation may become still higher and more noble by acquiring a knowledge of how the body is made, and its capabilities and enjoyments.

With all our high culture and refinements, there is required a radical change in diet, cookery, clothing,

exercises and sources of pleasure. Greater attention must be given to the laws of health, which cannot be broken without serious consequences, such as early weakness, decay and death. Nature will do its part if we will do ours. Will you enroll yourself, among the number who are trying to bring about this great reformation?

THE END.

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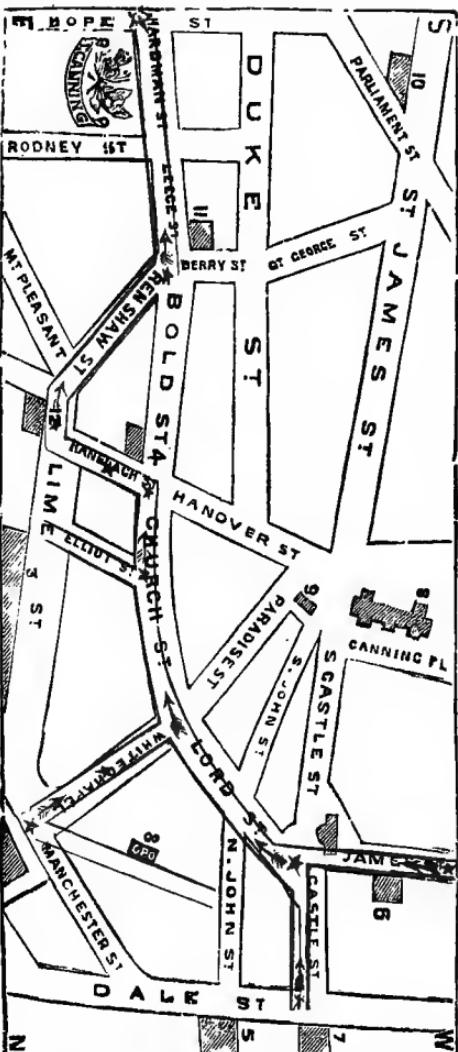
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